OLUME 16 • OCTOBER 1961 • NUMBER X

# Journal of the AMERICAN MEDICAL WOMEN'S ASSOCIATION

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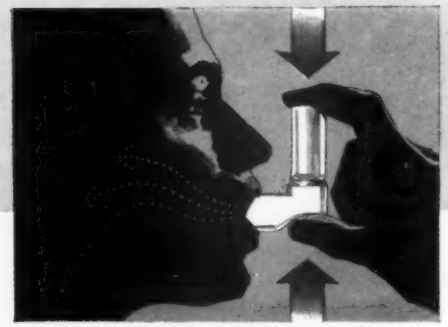

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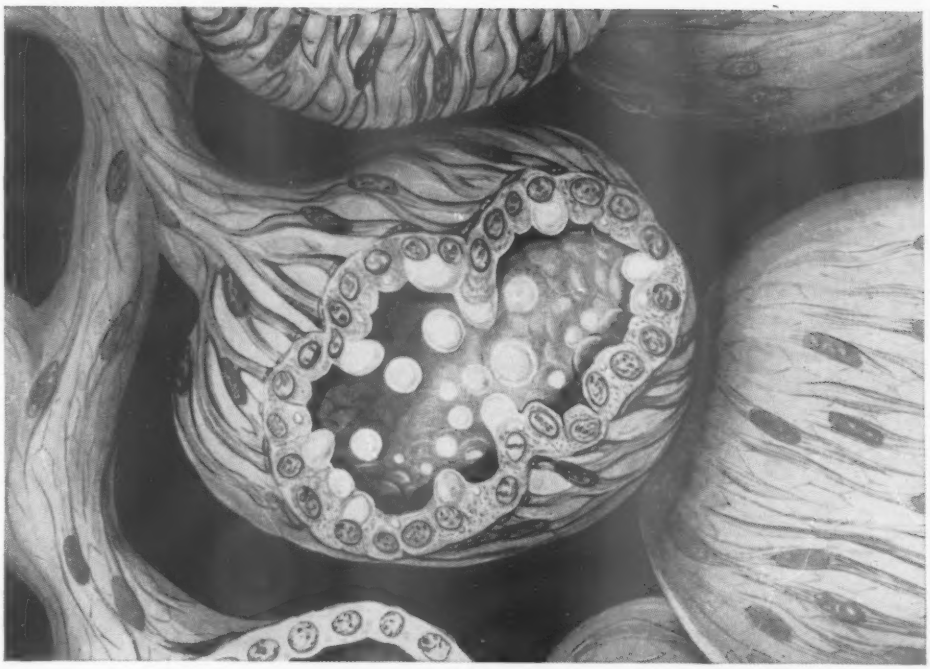

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Volume 16 October, 1961 Number 10


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1. Lipp, R.G.: Habitual Abortion—Treatment with Parenteral Medroxyprogesterone Acetate, to be published.

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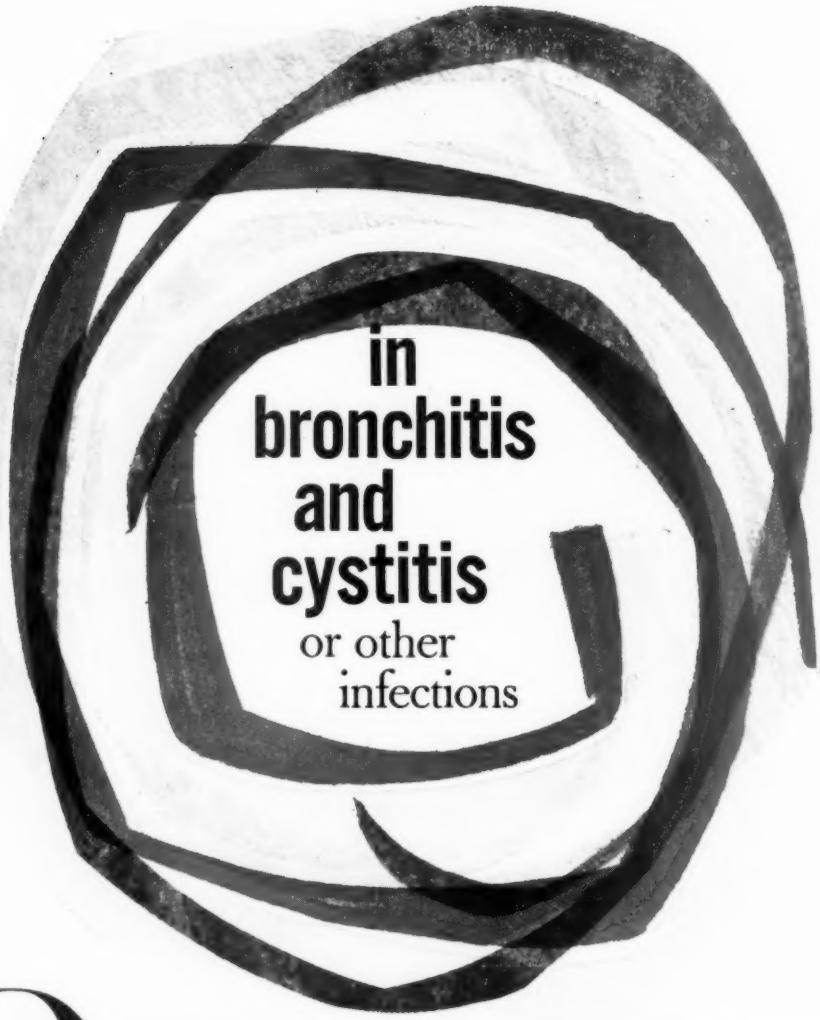


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1. Wainer, A. S.: Clin. Med. 7:2331, 1960.

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**REFERENCES:** (1) Coon, W. W.; Wolfman, E. F., Jr.; Foote, J. A., & Hodgson, P. E.: Am. J. Surg. **98**:4, 1959. (2) Friedman, E. A.; Little, W. A., & Sachtleben, M. R.: Am. J. Obst. & Gynec. **79**:474, 1960. (3) Margulis, R. R., & Brush, B. E.: Arch. Surg. **65**:511, 1952. (4) Personal Communications to the Department of Clinical Investigation, Parke, Davis & Company, 1959.

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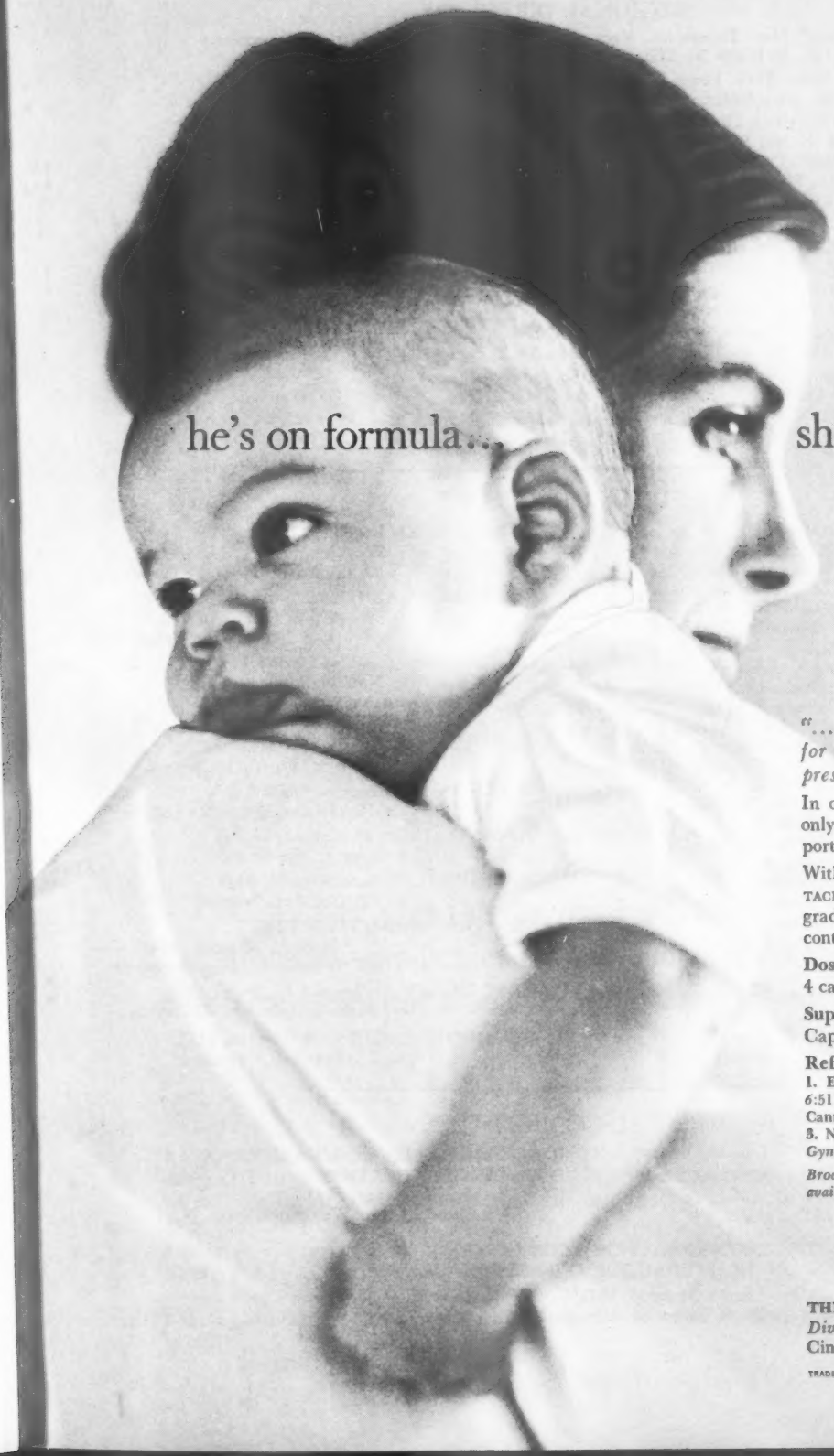

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1. Eichner, E., *et al.: Obst. & Gynec. 6*:511, 1955. 2. Bennet, E.T. and McCann, E.C.: *J. Maine M.A. 45*:225, 1954. 3. Nulsen, R.O., *et al.: Am. J. Obst. & Gynec. 65*:1048, 1953.

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1907 New York Ave., Whiting

IOWA: Evelyn M. Anderson, M.D.
816 Equitable Bldg., Des Moines

KENTUCKY: Helen B. Fraser, M.D.
620 S. Third St., Louisville 2

LOUISIANA: Mignon W. Jumel, M.D.
3619 Prytania St., New Orleans

MARYLAND: Mary Matthews, M.D.
8106 Harford Rd., Baltimore 14

MISSISSIPPI: Helen Siegrist, M.D.
Veterans Administration Center, Jackson

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16 South St., Milford, N.H.

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Lucy McMurray, M.D.
106 Girard Blvd., S.E., Albuquerque

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VIRGINIA: Lillian Lindemann, M.D.
4708 Carey St., Richmond

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200 15th Ave., Seattle 2

WESTERN MASSACHUSETTS:
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334 Highland St., Worcester

WEST VIRGINIA: Beatrice H. Kuhn, M.D.
1109 Quarrier St., Charleston

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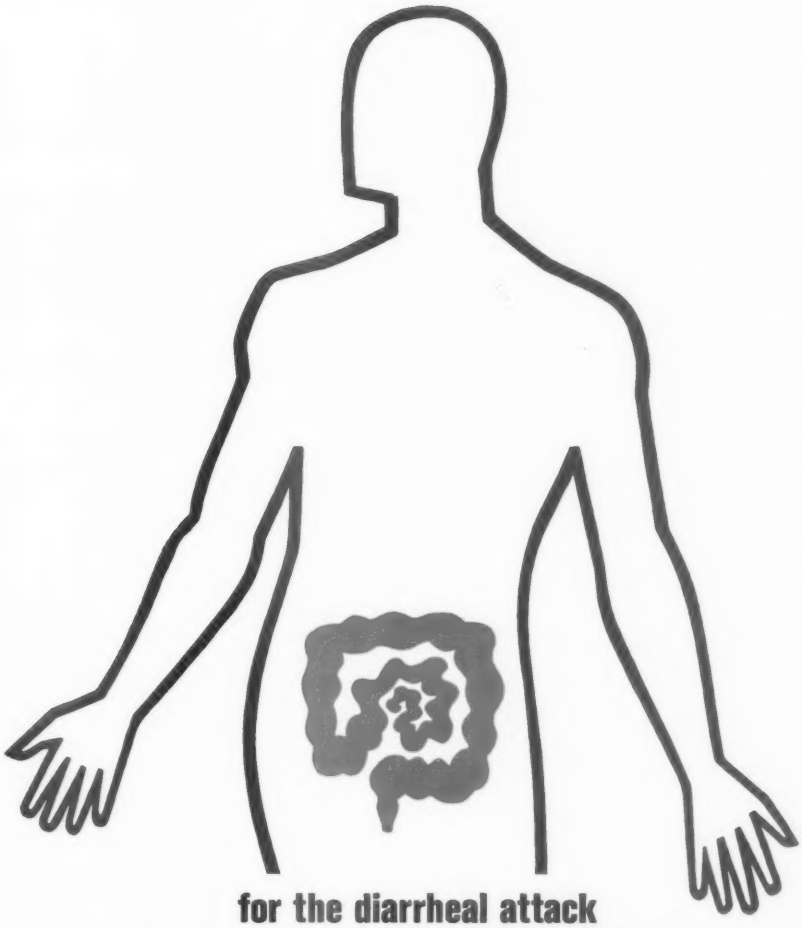
294 S. Centre St., Orange, N.J.



**for the diarrheal attack**

**effective–eradicates enteric bacterial pathogens**

**selective–does not eradicate the normal intestinal flora[1]**

# FUROXONE® LIQUID

brand of furazolidone

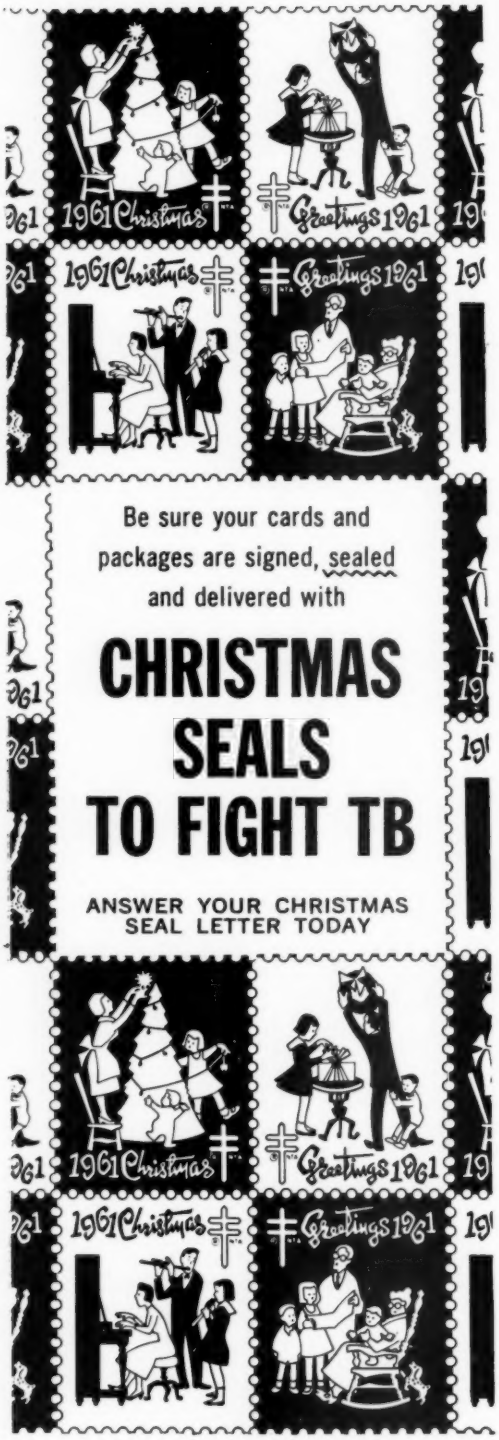
New, convenient prescription size: bottle of 2 oz. Also: bottle of 16 oz.

■ Exceptionally broad bactericidal range includes species and strains now resistant to other antimicrobials ■ Virtually nontoxic ■ Does not encourage monilial or staphylococcal overgrowth ■ Has not induced significant bacterial resistance ■ Dosage may be found in your PDR.

FUROXONE LIQUID is a pleasant orange-mint flavored suspension containing FUROXONE 50 mg. per 15 cc., with kaolin and pectin.

1. Mintz, A. A.: Antibiot. Med. 7:481, 1960.

EATON LABORATORIES, Division of The Norwich Pharmacal Company, NORWICH, N. Y.


1961 Christmas
Greetings 1961
Be sure your cards and packages are signed, sealed and delivered with
CHRISTMAS SEALS TO FIGHT TB
ANSWER YOUR CHRISTMAS SEAL LETTER TODAY

# American Medical Women's Association, Inc.

## BRANCH OFFICERS, 1961-1962

### ONE, WASHINGTON, D.C.

*President:* Charlotte Patricia Donlan, M.D., 10000 Woodhill Rd., Bethesda 14, Md.
*Secretary:* Gloria Grimes Cochran, M.D., 3706 Curtis Ct., Chevy Chase 15, Md.
*Membership Chairman:* Maxine Schurter, M.D., 2700 Q Street, N.W., Washington, D.C.
Meetings: First Tuesday, October through May.

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*Secretary:* Victoria B. Vacha, M.D., 4017 Deyo Ave., Brookfield, Ill.
*Membership Chairman:* Gertrude Engbring, M.D., 4753 Broadway, Chicago 40.
**Meetings held monthly.**

### THREE, MARYLAND

*President:* Louise Schnaufer, M.D., 3501 St. Paul St., Baltimore 18.
*Secretary:* Roselva Thompson-Daugharthy, M.D., 1264 Frances Ave., Baltimore 27.
**Meetings held first Thursday of month.**

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*President:* Laura E. Morrow, M.D., 197 Passaic Ave., Passaic.
*Secretary:* E. Barbara Lorents, Mounted Route No. 12, Phillipsburg, N.J.
*Membership Chairman:* Ella Coughlan, M.D., 10 Oakwood, Orange.

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*President:* Miriam Luten, M.D., Medical Dental Bldg., Klamath, Oregon.
*Secretary:* Dorothy Vinton, M.D., 2455 N.W. Marshall, Suite 5, Portland 10.
**Dinner meetings held every two months, with a symposium on scientific topics of general interest.**

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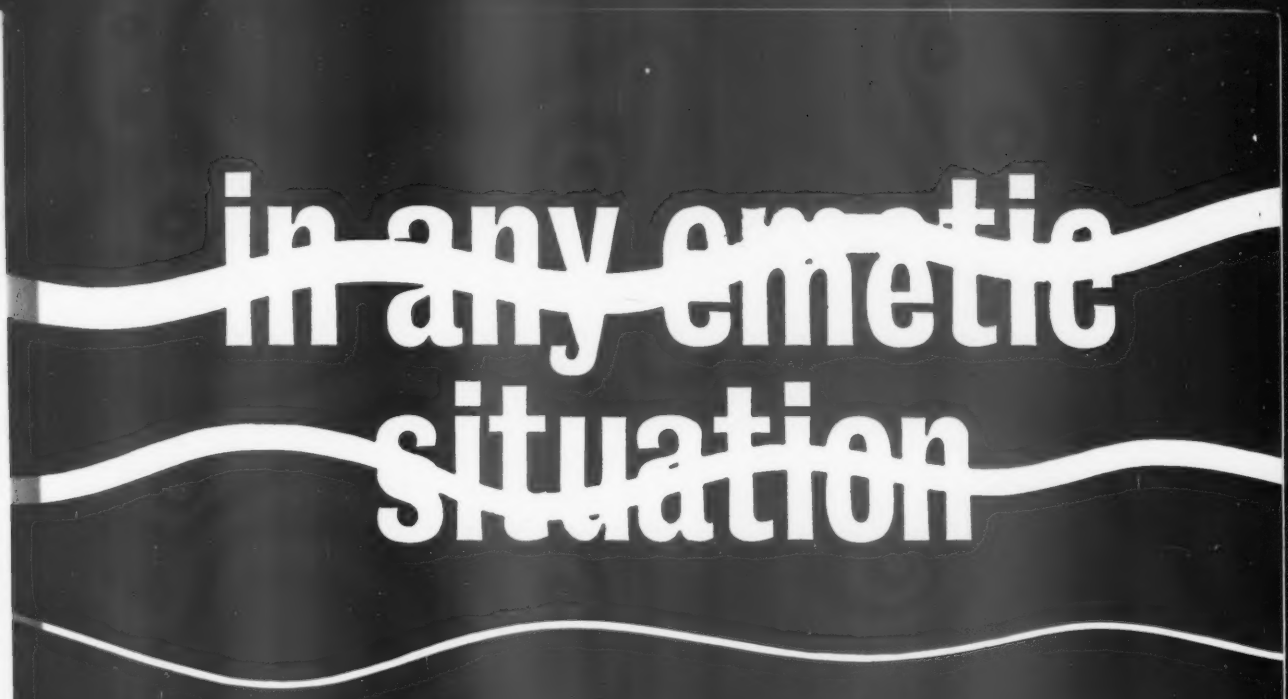
*President:* Aileen Mathiasen-Sciortino, M.D., 6 Hall St., Council Bluffs, Iowa.
*Secretary:* Louise M. Camel Farrage, M.D., 478 Elmwood, Council Bluffs, Iowa.

### EIGHT, NEW ORLEANS, LOUISIANA

*President:* Georgiana J. von Langermann, M.D., 1430 Tulane Ave., New Orleans.

*(Continued on Page 748)*




# Tigan is safe and sound

Against nausea there's nothing more effective or, for that matter, quite so safe as Tigan. Tigan has only one demonstrable pharmacologic property: it blocks emetic impulses, primarily by direct action at the chemoreceptor trigger zone (CTZ) of the medulla. Tigan thus stops active vomiting as effectively as it prevents nausea. There are no special precautions, no known contraindications for Tigan therapy. Specifically an antiemetic, Tigan is not a converted antihistamine, tranquilizer or sedative—and may be used even where older antiemetics are contraindicated.

**TIGAN 250-mg Capsules**—so safe that it may be used with complete confidence as a routine "morning sickness" prescription in any pregnancy. Tigan 250-mg Capsules may also be prescribed with assurance in a wide range of other emetic situations where an antiemetic in oral dosage form is indicated.

**TIGAN Injectable**—in pre- and postoperative nausea and vomiting and in any emetic situation where it is desirable to have rapid onset of antiemetic action or when oral administration is not practical.

**TIGAN Suppositories**—especially indicated in pediatric practice. Offers full antiemetic potency, avoids the risk of extrapyramidal convulsive syndromes occasionally resulting from phenothiazine usage in children. Tigan Suppositories are particularly useful in children when oral administration is not feasible.

TIGAN® Hydrochloride—4-(2-dimethylaminoethoxy)-N-(3,4,5-trimethoxybenzoyl) benzylamine hydrochloride

ROCHE
LABORATORIES
DIVISION OF HOFFMANN-LA ROCHE INC.

**When there's a pram in her future, she'll need Pramilets® today**

## Comprehensive vitamin-mineral support with just 1 Filmtab® daily

No one's ever said that looking ahead isn't a wise idea. (Granted, in time to come, thought will have to be given to diaper laundering.) However, perhaps little mother-to-be *should* take first things first.

Between now and arrival day, for instance, there's probably nothing that'll take precedence over the sound diet you'll prescribe for her. And Pramilets—with its stepped-up formula—more than ever complements the established regimen.

What's in order? Calcium? She gets a generous allowance with Pramilets. Iron? Pramilets provide a solid 40 milligrams of elemental iron (ferrous fumarate — the kind that's best-tolerated). As for the balance of the improved Pramilets formula, among the significant nutrients, vitamins C, $B_6$ and $B_{12}$ have all been increased.

Finally, some of Pramilets' patient-pleasing features: Convenient dosage — one a day, usually . . . a compact size tablet . . . and an attractive bottle for table or dresser.

Pramilets supplied in bottles of 100 and 1000 Filmtabs — and new 180-Filmtab Economy Bottle. Also available: Pramilets-F (Rx only) with Folic Acid.

109240

FILMTAB—FILM-SEALED TABLETS, ABBOTT; U.S. PAT. NO. 2,881,085.

ABBOTT

## the mysteries of the menarche–minus the myths

Even stripped of myths, the menarche remains a strange and baffling experience for the adolescent girl. Surely this period of rapid physical and psychic change deserves your special counseling. When your advice includes the use of Tampax® – the modern tampon method of protection – you are offering your patient, in addition, the reassurance of safe, complete, discreet menstrual hygiene.

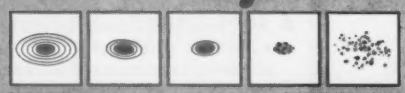
Tampax is frictionless and nonirritating. It will not cause erosion or block the menstrual flow. Because Tampax provides *internal* protection, it does not favor the development of odor nor does it establish a bridge for the entry of pathogenic bacteria. Tampax *does* afford easy management, easy disposal. And since wide clinical evidence confirms that virginity is not a contraindication to its use, Tampax is suitable for every age of the menstrual span. Youngsters especially appreciate Tampax at gym and swim time. There are no encumbrances to interfere with activity or to cause embarrassment. The older girl favors Tampax because of the social poise it makes possible, despite "the time of the month." Tampax is available in three reliable absorbencies—"Junior," "Regular," and "Super" – to meet varying requirements.

Why not suggest "Tampax" to your teenage patients? Its matter-of-fact simplicity, safety and security are outstanding features – sure to be welcome now and in the years ahead.

Tampax Incorporated, Palmer, Mass.

# Bendectin at bedtime prevents morning sickness

## here's why:



BEDTIME — EARLY MORNING

BENDECTIN release assures peak action when she needs it most... *first thing in the morning!*

"...I have gained the best results with [BENDECTIN]... Because these tablets have a protective coating... the dose taken at night becomes effective in the morning."[1]

# BENDECTIN

Double-blind study shows BENDECTIN effective in 94% of patients.[2] In compiled reports, effective in 1220 of 1267 patients.[3-6]

With BENDECTIN, there are no phenothiazine-like side effects.

And BENDECTIN costs less per day than a quart of milk.

*Dosage:* Two tablets at bedtime.

*Supply:* Bottles of 100 and 500.

*Formula:* Each special coated tablet contains Bentyl (dicyclomine) hydrochloride, 10 mg.; Decapryn (doxylamine) succinate, 10 mg.; Pyridoxine hydrochloride, 10 mg.

*References:* 1. Middleton, T. F.: Postgrad. Med. 24:699, 1958. 2. Geiger, C. J., *et al.*: Obst. & Gynec. 5:688, 1959. 3. Nulsen, R. O.: Ohio State M. J. 53:565, 1957. 4. Towne, J. E.: Internat. Rec. Med. 171:583, 1958. 5. Woodhull, R. B.: Western Med. 1:13,1960. 6. Personal communications: 1956-60.

*Brochure with full product information available on request.*

Merrell
SINCE 1828

THE WM. S. MERRELL COMPANY
*Division of Richardson-Merrell Inc.*
Cincinnati, Ohio/Weston, Ontario

TRADEMARKS: BENDECTIN®, BENTYL®, DECAPRYN®

**in the treatment of vaginitis... physicians have asked...**

**Q** How do TRIB SUPPOSITORIES and CREAM differ from other antivaginitis agents?

**A** Only TRIB preparations contain Triburon Chloride, the wide-spectrum *topical* microbicide which is effective in trichomonal, monilial and bacterial infections.

**Q** Why is this important for vaginal therapy?

**A** Since vaginal infections are rarely caused by single invading organisms, the broad-spectrum effectiveness of TRIB agents assures greater healing in more patients.

**Q** What distinct advantages do TRIB preparations have over broad-spectrum antibiotics and other microbicides?

**A** Though TRIB is effective against most commonly encountered vaginitides, including many antibiotic-resistant staph. and strep., resistant strains rarely develop in spite of prolonged use. Since Triburon Chloride is used only topically, there is no danger of sensitizing the patient to an antimicrobial which the physician may wish to use systemically.

**Q** How do TRIB preparations penetrate the vaginal rugae which often harbor pathogens?

**A** TRIB preparations are water-soluble and self-emulsifying, assuring a high rate of diffusion and prolonged retention.

**Q** What other TRIB properties promote healing?

**A** TRIB preparations approximate the pH of the normal healthy vaginal tract and are not irritating to the mucosa. Also, their many esthetic features encourage patient cooperation, even in prolonged usage.

ROCHE LABORATORIES Division of Hoffmann-La Roche Inc.

Trib™ Vaginal Suppositories and Cream

contains Triburon® Chloride 0.1%

consistent response in vaginal infections


# American Medical Women's Association, Inc.

## BRANCH OFFICERS, 1961-1962

(Continued from Page 742)

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*President:* Mary Hall, M.D., 4042 N. Wilson Drive, Milwaukee 11.

### ELEVEN, SOUTHWESTERN OHIO

*President:* Ruth C. Ferris, M.D., 9360 Montgomery Rd., Cincinnati 20.

*Secretary:* Mary M. Martin, M.D., 3035 Clifton Ave., Cincinnati 20.

Meetings held second Tuesday, September, November, January, March, May.

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*Secretary:* Helen P. Graves, M.D., 350 E. Broad St., Columbus 15.

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*President:* Dorothea Mankin, M.D., 510 Third Ave., Chula Vista, Calif.

*Secretary:* Janet Gilman, M.D., 833 Fairway Ct., Chula Vista, Calif.

Meetings held every other month on third Wednesday from September through May

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*President:* Julia V. Lichtenstein, M.D., 2 W. 87th St., New York City.

*Secretary:* Helen J. Neave, M.D., 140 E. 54th St., New York City.

*Membership Chairman:* Estelle DeVito, M.D., 301 E. 21st St., New York 10.

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*Secretary:* Harriet E. Gillette, M.D., Cleveland Clinic, 2020 E. 93rd St., Cleveland 6.

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*Secretary:* Esther S. Farney, M.D., 222 South Trenton Ave., Wilkensburg, Pa.

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*Membership Chairman:* Marguerite P. McCarthy-Brough, M.D., 1811 W. Genesee St., Syracuse.

*(Continued on Following Page)*

# American Medical Women's Association, Inc.

## BRANCH OFFICERS, 1961-1962

(Continued from Preceding Page)

### NINETEEN, IOWA

*President:* Evelyn Anderson, M.D., 637 42nd St., Des Moines 12.

*Secretary-Treasurer:* Clysta Richard, M.D., 636 Woodland Terr., Doctor's Park, Des Moines 14.

Meetings held each April, in conjunction with state medical meeting.

### TWENTY (BLACKWELL), DETROIT, MICHIGAN

*President:* Kathleen Weston, M.D., 261 Corne Rd., Ann Arbor, Mich.

*Secretary:* Lillian Diakow, M.D., 2343 Trenton Dr., Trenton, Mich.

### TWENTY-THREE, LOS ANGELES, CALIFORNIA

*President:* Elizabeth Stern, M.D., 4600 Gainsborough Ave., Los Angeles 27.

*Secretary:* Linda K. Morimoto, M.D., 317 East Second St., Los Angeles 12.

*Membership Chairman:* Edith Shepard, M.D., 1014 S. Spaulding, Los Angeles.

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*President:* Mary T. Glassen, M.D., Phillipsburg.

*Secretary:* Ruth P. Spiegel, M.D., Formosa.

Next meeting will be held on call.

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*President:* Joan Buchanan, M.D., Glen Mills, Pa.

*Secretary:* Eleanor Roverud, M.D., Woman's Hospital, Preston and Parrish, Philadelphia 4.

Meetings held three times a year.

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*President:* Della G. Drips, M.D., Oronoco.

*Secretary:* Nellie N. Barsness, M.D., 1562 N. Hanline Ave., St. Paul 13.

### TWENTY-NINE, ATLANTA, GEORGIA

*President:* Dorothy Brinsfield, M.D., 3170 Sewell Rd., S.W., Atlanta 11.

*Secretary:* Shirley L. Rivers, M.D., Veterans Administration Hospital, 4158 Peachtree Rd., Atlanta 19.

*Membership Chairman:* Dorothy Jaeger-Lee, M.D., 3825 Wieuca Rd., N.W., Atlanta 5.

Meetings held third Thursday monthly, except June, July, and August.

*(Continued on Page 796)*

**controls vaginitis symptoms... attacks vaginitis causes...**

- RAPID SYMPTOMATIC RELIEF: itching and burning usually disappear after only 1 or 2 TRIB applications.
- EFFECTIVE IN ALL THREE: trichomonal, monilial and nonspecific bacterial vaginitis respond to TRIB in up to 85% of cases.
- NONSENSITIZING, NONIRRITATING: no evidence of systemic or local reaction; TRIB is well tolerated in the vagina and on raw vulvar surfaces.
- DEMONSTRATED SAFETY: therapy with TRIB may safely be continued during pregnancy and menstruation without untoward reactions.

AND MOST IMPORTANT TO YOUR PATIENTS...

- ESTHETICALLY ACCEPTABLE: suppository and cream are smooth, white, odorless, nonstaining and can be conveniently administered with accompanying applicators.

Supplied: TRIB VAGINAL SUPPOSITORIES—Boxes of 24 with reusable applicator. TRIB VAGINAL CREAM—3-ounce tubes with 18 disposable applicators. Consult literature and dosage information, available on request, before prescribing.

TRIBURON® CHLORIDE—N,N'-bis[1-methyl-3-(2,2,6-trimethylcyclohexyl) propyll-N,N'-dimethyl-1,6-hexanediamine bis (methochloride)

ROCHE LABORATORIES Division of Hoffmann-La Roche Inc.

Trib™ Vaginal Suppositories and Cream

contains Triburon® Chloride 0.1%

consistent response in vaginal infections

## in Ob-Gyn practice: prevent bacterial insult to traumatized cervicovaginal tissue

# FURACIN®

brand of nitrofurazone

**a safe, single agent with singular benefits**

From a recent study reporting the lowered incidence of postoperative morbidity following the use of FURACIN Vaginal Suppositories in operative gynecology—"Certainly a single agent is to be preferred to a combination of agents, providing comparable results are obtained."*

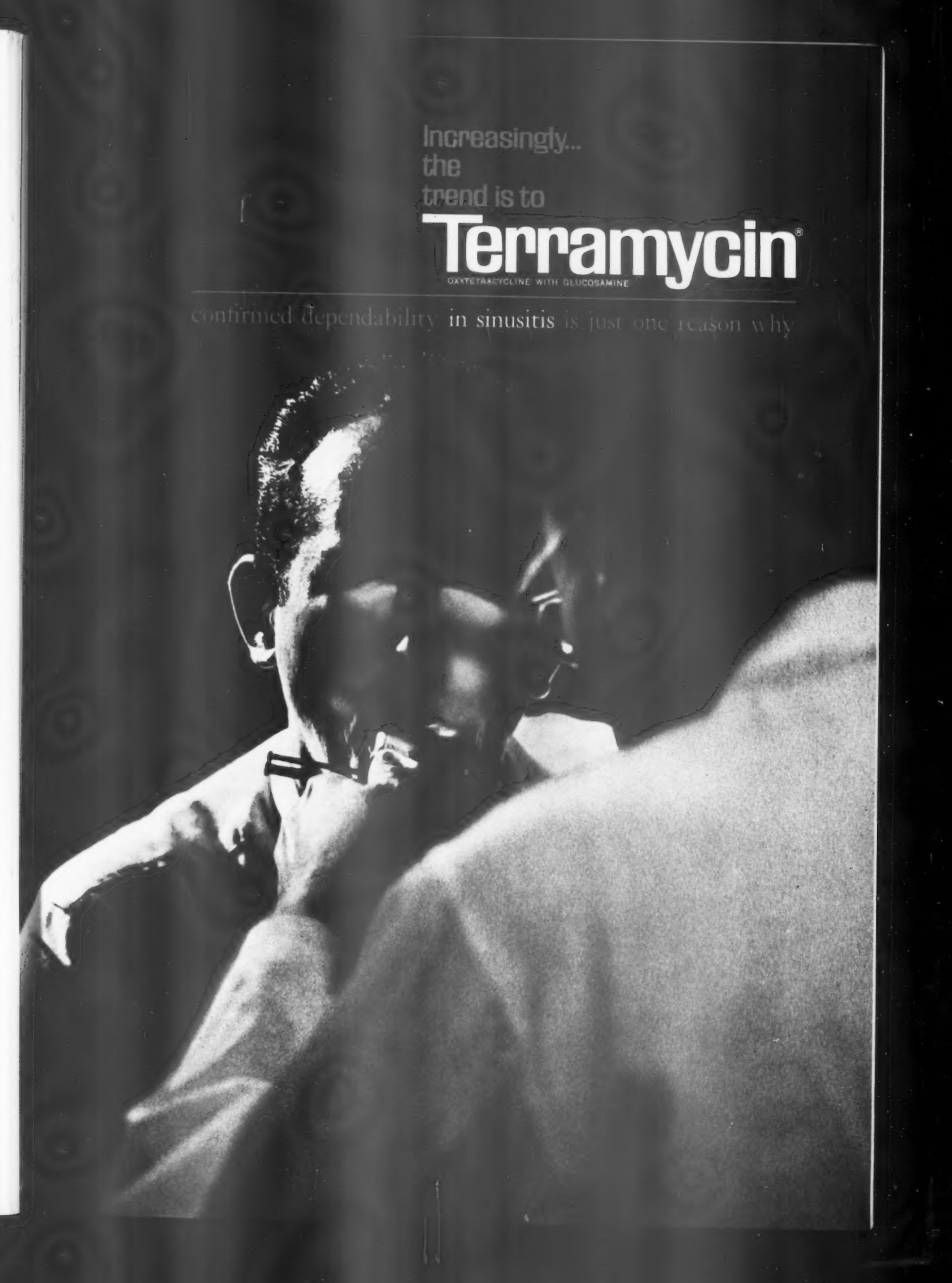
*Used before and after* cervicovaginal surgery, delivery, radiation therapy and certain office procedures, FURACIN controls infection, hastens healing, reduces discharge, malodor and discomfort.

FURACIN VAGINAL SUPPOSITORIES: FURACIN 0.3% in a water-miscible base. Box of 12, each 2 Gm. suppository hermetically sealed in yellow foil.

FURACIN CREAM: FURACIN 0.2% in a water-miscible cream base. Tube of 3 oz. with plastic plunger-type applicator.

*Grimes, H. G., and Geiger, C. J.: Am. J. Obst. & Gynec. 79:441, 1960.

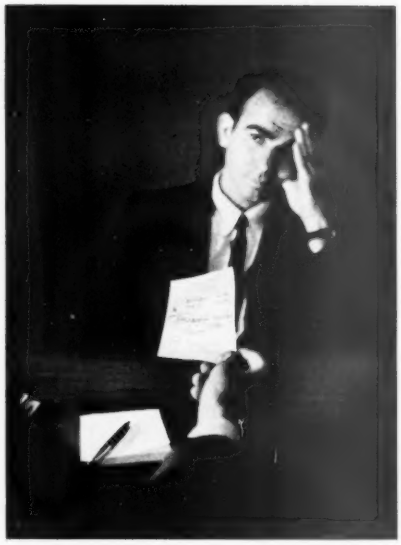
EATON LABORATORIES
Division of The Norwich Pharmacal Company
NORWICH, NEW YORK


Increasingly...
the
trend is to
Terramycin®
OXYTETRACYCLINE WITH GLUCOSAMINE
confirmed dependability in sinusitis is just one reason why

According to a recent report* on the effectiveness of Terramycin in 106 cases of upper respiratory tract infection: "The response in sinusitis was particularly gratifying, as both acute and chronic cases were controlled within an average of five days."

"It was the impression of the hospital staff that oxytetracycline [Terramycin] was not only better tolerated, but more effective than other antibiotics habitually used."

The results reported in this and many other studies confirm the vitality of Terramycin for broad-spectrum antibiotic therapy and demonstrate why —increasingly—the trend is to Terramycin.



## In brief

The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low order of toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions to Terramycin are rare. Aluminum hydroxide gel may decrease antibiotic absorption and is contraindicated.

*More detailed professional information available on request.*

another reason why the trend is to Terramycin—*versatility of dosage form:*

**TERRAMYCIN** Syrup/Pediatric Drops
*125 mg. per tsp. and 5 mg. per drop (100 mg./cc.), respectively—deliciously fruit-flavored aqueous forms . . . preconstituted for ready oral administration*

**TERRAMYCIN** Intramuscular Solution
*50 mg./cc. in 10 cc. vials; 100 mg. and 250 mg. in 2 cc. ampules—the broad-spectrum antibiotic for immediate intramuscular injection . . . conveniently preconstituted . . . notably well tolerated at injection site with low tissue reaction compared to other broad-spectrum antibiotics*

# Terramycin®

OXYTETRACYCLINE WITH GLUCOSAMINE

**CAPSULES** *250 mg. and 125 mg. per capsule*

*convenient initial or maintenance therapy in adults and older children*

*Science for the world's well-being®* Pfizer

PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc.
New York 17, N. Y.

*Jacques, A. A., and Fuchs, V. H.: J. Louisiana M. Soc. 113:200, May, 1961.

Pfizer *Science for the world's well-being®*

Dear Doctor:

Reports from our representatives indicate that many physicians would appreciate simplification for prescription-writing purposes of the names of Terramycin products in both the "plain" and the "Cosa" dosage forms.

The "Cosa" forms originated, you may recall, on the basis of clinical evidence of enhanced antibiotic absorption when glucosamine is employed in oral administration. To permit each physician individually to study this evidence and choose which form he would prefer to prescribe, we offered Terramycin in both forms—that is, in the regular Terramycin forms without glucosamine, and in the "Cosa" forms with glucosamine.

This distinction appears to be no longer necessary since glucosamine, a highly acceptable excipient for oral antibiotics, now is being incorporated uniformly in all such forms, thereby simplifying nomenclature and your prescription writing.

Accordingly, and effective immediately, forms incorporating glucosamine will be offered simply as Terramycin without the "Cosa" prefix.

To make clear just which forms are affected, please refer to the brief tabulation (below) of Terramycin dosage forms both *before* and *after* this change. We are also requesting our representative to call on you at an early date to answer any questions that may arise.

We feel certain that this action, prompted by your comments and those of many other physicians, will simplify your writing of prescriptions for Terramycin products.

We welcome your comments on this action and on any other phase of our operations, since it is our objective to render every service as efficiently as possible to our friends in the medical profession.

Sincerely,
PFIZER LABORATORIES

*The following table indicates the former name and the current name of Terramycin systemic preparations:*

| FORMERLY NAMED | NOW NAMED |
|---|---|
| Cosa-Terramycin® Capsules | **Terramycin**® Capsules* |
| Cosa-Terrabon® Oral Suspension | **Terramycin** Syrup |
| Cosa-Terrabon Pediatric Drops | **Terramycin** Pediatric Drops |

*and simpler names for these Terramycin-containing formulations:*

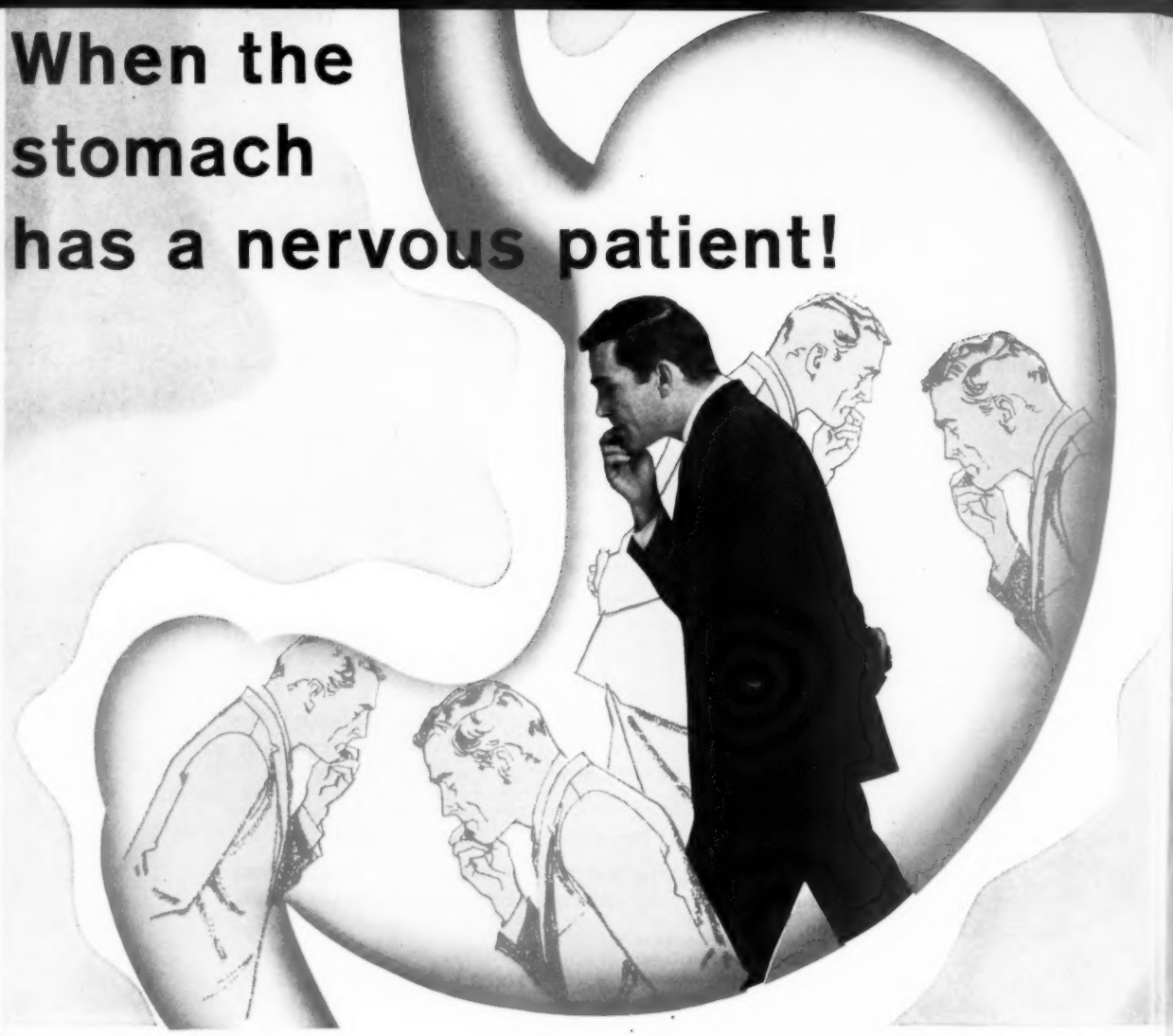
| | |
|---|---|
| Cosa-Terrastatin® Capsules | **Terrastatin**® Capsules |
| Cosa-Terrastatin for Oral Suspension | **Terrastatin** for Oral Suspension |
| Cosa-Terracydin® Capsules | **Terracydin**® Capsules |

*. . . and these names remain unchanged:*
**Terramycin** Intramuscular Solution
**Terramycin** Intravenous

**Terramycin Capsules* without glucosamine *are no longer available.*

The clinical versatility of Terramycin is enhanced by its specialized dosage forms adapted to individual needs—*another reason for the trend to Terramycin.*

# When the stomach has a nervous patient!



# BUTIBEL®

antispasmodic/sedative

**relaxes the tense patient and his jittery stomach...without the sedative "build-up" many patients experience with phenobarbital preparations.**

BUTIBEL combines the "time-matched" components—BUTISOL SODIUM® butabarbital sodium 15 mg. and extract of belladonna 15 mg.—each having approximately 5 hours' duration of effect. Thus, with Butibel there is no overlapping sedation, no antispasmodic gap—t.i.d. dosage keeps the patient comfortable without sluggishness.

*Available as:* BUTIBEL Tablets • Elixir • Prestabs® Butibel R-A (Repeat Action Tablets)

McNEIL LABORATORIES, INC., Fort Washington, Pa.

# Three of these women have vaginitis (trichomonal, monilial or mixed). Only comprehensive therapy can reach all three.

For every 2 cases of vaginitis caused by Trichomonas vaginalis alone, there is usually 1 case caused by Candida (Monilia) albicans, Haemophilus vaginalis, or mixed infection involving several pathogens.[1-3]

You can reach all of these vaginitis patients with the *comprehensive* vaginal preparation effective against C. albicans, H. vaginalis and other bacterial pathogens, *in addition to* T. vaginalis.

1. POWDER *for weekly application in your office:* FUROXONE® (furazolidone) 0.1% and MICOFUR® (nifuroxime) 0.5%, in an acidic water-dispersible base. 15 Gm. plastic squeeze bottle. 2. SUPPOSITORIES *for continued home use:* first week 1 in the morning and 1 on retiring. After first week, 1 at night may suffice. Continue treatment during menses and throughout menstrual cycle and for several days thereafter. Contain MICOFUR 0.375% and FUROXONE 0.25% in a water-miscible base. Boxes of 12 or 24 suppositories with applicator.

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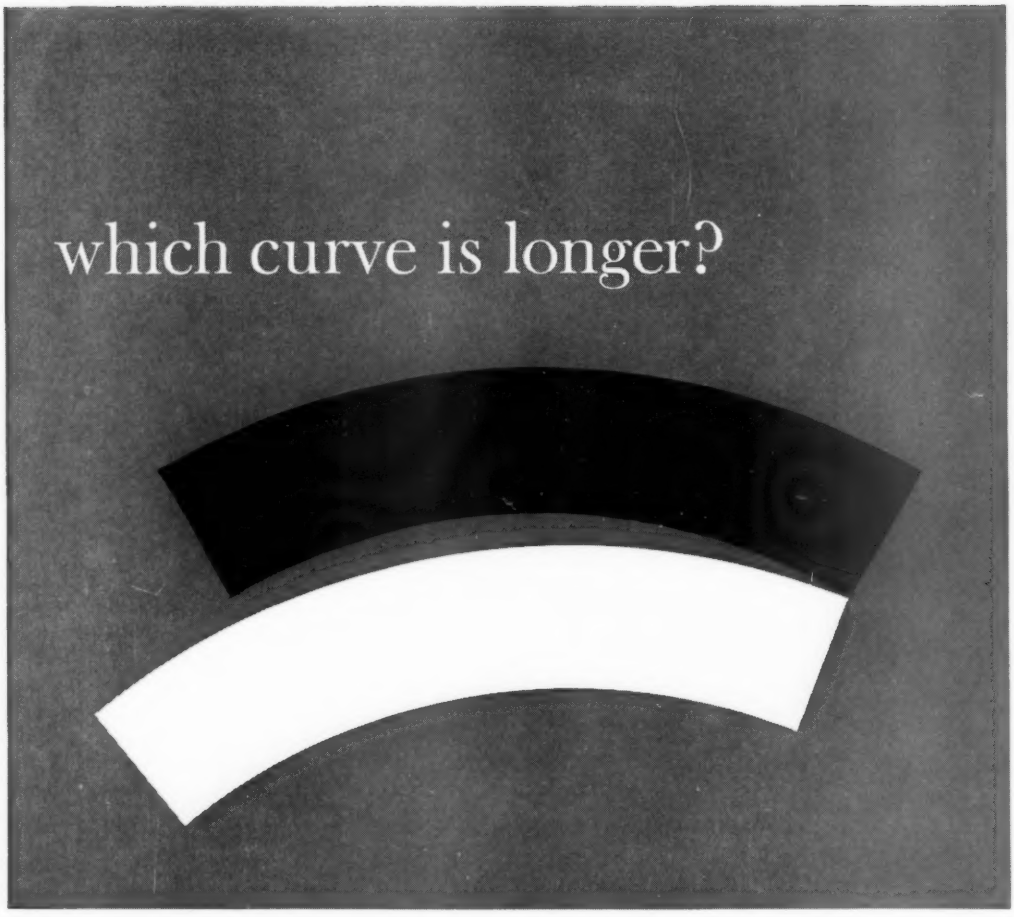


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Journal of the
AMERICAN MEDICAL WOMEN'S ASSOCIATION

Volume 16 October, 1961 Number 10

# Progress in Anesthesia

Esther M. Greisheimer, M.D., Ph.D.

THE USE OF ANESTHETIC agents during surgical operations was introduced less than 120 years ago. Diethyl ether was the first anesthetic agent to be used extensively in the United States, and it is still widely used.

One advantage of using ether is that it does not sensitize the myocardium to catechol amines, so that epinephrine and norepinephrine (levarterenol) may be used safely during ether anesthesia. However, ether does depress the myocardium. This has been shown by many methods during the past 75 years, but most recently by means of a strain gauge arch sewed to the anterior surface of the right ventricle of dogs. The contractile force was reduced to 60 per cent of the control value in unanesthetized animals.[1]

One precaution for anesthesiologists to keep in mind is that ether potentiates the blocking action of curare and other nondepolarizing relaxants, consequently the dose of such relaxants should be greatly reduced (to ¼ or ⅓ of normal) when used during anesthesia.[2]

Cardiovascular physiology would be much more disturbed than it is during ether anesthesia, were it not for the fact that ether causes a discharge in all sympathetic nerves. This increases the heart rate and helps to maintain the blood pressure. The norepinephrine concentration in the plasma rises.[3,4]

Chloroform came into use in the British Isles at about the same time as ether in the United States. Sudden deaths often occurred during induction, even before consciousness was lost. These deaths were attributed to "paralysis" of the heart, but a controversy soon arose, the opponents attributing the deaths to respiratory failure. The controversy became so vigorous that commissions were appointed to investigate the cause of sudden deaths during the administration of chloroform. The physicians of the United States were asked to help solve the problem. After more than half a century of controversy, Levy showed that the myocardium becomes "sensitized" to epinephrine under chloroform anesthesia. In the sensitized myocardium ventricular tachycardia may occur and progress to ventricular fibrillation. It is now known that chloroform may be used safely, if proper preanesthetic medications are given, and hypoxia and hypercapnia avoided.[5,6]

Nitrous oxide anesthesia was introduced in the nineteenth century, also. It was soon realized that nitrous oxide without air could be used for only a short time before it had to be withdrawn. Bert suggested that nitrous oxide and air be administered at 2 atmospheres of pressure to prevent the disastrous effects of lack of oxygen. Many successful operations were performed under nitrous oxide and air by "Bert's method." However, the apparatus was so cumbersome that Hewitt decided to try combinations of nitrous oxide with oxygen, instead of air. He found that when he used 12¾ per cent of oxygen with nitrous oxide under pressure by gasometer, he obtained satisfactory, safe anesthesia for short surgical procedures. Today anesthesiologists use mixtures of 20 per cent oxygen with 80 per cent nitrous oxide at atmospheric pressure. This is an excellent supplementary anesthesia and there is no danger in its use if hypoxia and hypercapnia are prevented.

The hypnotic properties of urethane were recognized in 1885. It was used not only for animals but also for patients suffering from insomnia or mental disturbances. Urethane has no deleterious effects on the heart and is still considered an excellent hypnotic for warm-blooded animals, being especially preferred for rabbits.

The hypnotic properties of chloralose were recognized in 1893. It soon became a favorite anesthetic for experimental animals since it does not depress reflexes, heart action, blood pressure, or respiration as do many other general anesthetic agents. Chloralose is satisfactory for the study of both respiratory and cardiac reflexes.[7,8] The myocardium is not sensitized to epinephrine, so chloralose is considered an excellent anesthetic agent for experimental work.

Barbiturates were introduced into anesthesia near the end of the first quarter of the twentieth century. They are used widely both clinically and experimentally. Pentobarbital sodium is the preparation chosen most frequently in the United States for experimental work on dogs. It is used commonly for preanesthetic medication in patients. Pentobarbital sodium has a depressing effect on the heart.[9]

Thiopental sodium is used for induction of general anesthesia with various agents. It is difficult to find studies of thiopental effects on the cardiovascular system which are not complicated by either preanesthetic medication or supplemented by nitrous oxide. The general impression is that the heart rate is increased and the rhythm regular. The myocardium is not sensitized to epinephrine. No conclusions can be drawn about cardiac output due to the complicated conditions and multiple agents under which the determinations have been made.

There seems to be no widespread stimulation of the sympathetic system during barbiturate anesthesia. The plasma level of epinephrine is not increased, and that of norepinephrine is increased only transiently.[10] The cardiovascular reflexes are depressed under barbiturate anesthesia;[11] consequently, this is not the ideal type of anesthesia to be used for the study of vasomotor reflexes in animals, except pigs.[12]

Cyclopropane was introduced as an anesthetic gas in 1929. The tendency for arrhythmias to occur under cyclopropane anesthesia was noted early, as well as sensitization to epinephrine and other catechol amines. The sensitization of the myocardium under cyclopropane is greater than under chloroform.[5] The contractile force of the myocardium is reduced to 57 per cent of the control value in deep cyclopropane anesthesia.[1] In individuals who have not received premedication, the cardiac output increases during light surgical anesthesia.[13] If morphine has been used for preanesthetic medication, the cardiac output decreases during the administration of cyclopropane.[13-15] The central venous pressure is increased[16] and there is increased sympathetic activity, shown by a markedly increased plasma level of norepinephrine.[10] Both the mean arterial and the peripheral venous blood pressures are elevated.[13-17]

The most recent inhalation anesthetic agent to be introduced is halothane. Its properties were described in 1956. It is neither flammable nor explosive. It is from 2 to 4 times as potent as chloroform and 5 times as potent as ether.

Bradycardia is often found during the administration of halothane and arrhythmias of various types can occur.[18-21] The contractile force of the heart may fall to about 20 per cent of the control value,[22] and the cardiac output is reduced.[23]

The arterial blood pressure falls, probably because of the reduced cardiac output. There is no stimulation of the sympathetic nervous system, consequently there is no rise in the plasma level of norepinephrine.

The skin remains dry, warm, and pink and

the veins are dilated;[24] one does not see a typical picture of shock, even after hemorrhage.

The use of *d*-tubocurarine chloride with halothane is not recommended, as one then may have hypotension due to *d*-tubocurarine chloride, as well as that due to halothane.

Progress cannot be discussed adequately without mentioning other factors that have played an important part in the development of anesthesia. Space does not permit a discussion of the development of anesthesia machines with carbon dioxide absorbers, flow meters, valves which permit a closed circuit, and accurate vaporizers. Improvements have had to keep pace with new agents and methods of administration, as well as with the tremendous strides in surgical techniques.

Relaxants have been used in anesthesia for about 20 years. The chief advantage of using relaxants is that the abdominal muscular relaxation demanded by the surgeon can be had with much lower concentrations of general anesthetic agents. Since patients cannot indicate in any way that they feel pain after a relaxant one must not use the relaxant as an "anesthetic" agent but only as a supplement to secure additional relaxation. Of course, a relaxant must never be used without having the essential apparatus for administering artificial respiration at hand for a possible emergency. Caution must be exercised in the use of gallamine triethiodide, which produces tachycardia.[25]

Succinylcholine chloride leads to a transient rise in blood pressure and an increase in pulse rate during laryngoscopy and tracheal intubation.[26] Succinylcholine chloride is capable of producing changes in both cardiac rate and rhythm in infants.[27,28]

*d*-Tubocurarine chloride can cause a fall in blood pressure. Ether potentiates the effects of *d*-tubocurarine chloride and other nondepolarizing relaxants as stated previously.[2] *d*-tubocurarine chloride, especially, should not be used with halothane since both can cause hypotension.[18]

Despite a few disadvantages, relaxants are used daily in a high percentage of abdominal operations and are used routinely to facilitate intubations. The advantage of being able to use lower concentrations of general anesthetic agents and yet provide satisfactory muscular relaxation for the surgeon far overbalances the disadvantages.

Preanesthetic medication, now a routine procedure, was not used in the first 20 years of general anesthesia. In fact, when it was first announced that the duration of chloroform anesthesia was prolonged by the subsequent subcutaneous injection of morphine, disbelief was so great that a commission was appointed to investigate the claim. The claim was substantiated (1864), but several years elapsed before Bernard convinced physicians that the morphine should be given first (1875), and then very little chloroform was needed to anesthetize the patient. This procedure eliminated the period of excitement and greatly lessened the danger of sudden death, which occurred all too often when chloroform was used alone.

A few more years elapsed before Schäfer announced that atropine should never be omitted before the administration of chloroform (1880). It was still later that a combination of morphine and atropine was used for preanesthetic medication (1884). It has been known for at least 35 years that morphine itself may produce cardiac irregularities and that it depresses cardiovascular functions.

Meperidine hydrochloride is frequently used as a substitute for morphine, and phenothiazine derivatives are now used by many anethesiologists for preanesthetic medication. Although hypotension is a serious complication after some of the phenothiazine derivatives, the protection of the myocardium against catechol amines is a distinct advantage of their use.[29]

One of the most important advances in anesthesia is the recognition of the dangers of insufficient oxygen. This was mentioned previously in nitrous oxide anesthesia. Hypoxia produces many deleterious effects on the cardiovascular system and these difficulties must not be added to those arising from the anesthetic agents.[30] The practice of tracheal intubation and assisted or controlled respiration has made possible many types of operations hitherto impossible. Despite all the available safeguards against hypoxia, an occasional patient emerges from anesthesia with permanent damage to the cerebral cortex as a result of hypoxia, or fails to emerge at all.

It is not enough to supply sufficient oxygen to anesthetized patients. The anesthesiologist must also prevent the accumulation of carbon dioxide. The danger of hypercapnia is that it can contribute a share of responsibility in the production of arrhythmias under cyclopropane anesthesia. It seems that any patient receiving cyclopropane will develop cardiac ar-

rhythmias if carbon dioxide is permitted to accumulate by inadequate ventilation,[31] despite adequate oxygenation. The same is true of halothane anesthesia.[32]

The significance of epinephrine and norepinephrine in anesthesia is finally being recognized. It was shown half a century ago that ether, chloroform, and urethane exhausted the supply of epinephrine in the adrenal glands of animals, provided the splanchnic nerves were intact. This is the body's response to these anesthetic agents, and the effects on the cardiovascular system are less drastic than they would be without this output of epinephrine. A rise in the plasma levels of epinephrine has been shown during the administration of these agents.[33]

The concentration of norepinephrine in plasma increases markedly during the administration of certain general anesthetic agents. The source of this norepinephrine is the postganglionic sympathetic nerve endings, especially in the heart and abdominal viscera.[10] This widespread sympathetic activity is one of the responses to stress and it helps to maintain homeostasis in the cardiovascular system. The increased sympathetic activity occurs during cyclopropane and ether anesthesia, but there is suppression of sympathetic activity during halothane anesthesia. There seems to be no increase in sympathetic activity during thiopental sodium administration.[34]

The adrenal cortex may become exhausted during or immediately after anesthesia. When this happens, low blood pressure is persistent, despite transfusions and other usually effective measures.[35] Ether and cyclopropane are thought to stimulate the adrenal cortex indirectly, as is the case in many types of stress, but morphine, and perhaps the barbiturates as well, block the release of ACTH, which means that the adrenal corticoids important in the reaction to stress are lacking.[36]

Space does not permit the presentation of other avenues of progress in anesthesia. It will be noted that the oldest reference given is 1951, and that about 90 per cent of the list includes work done in the last five years. It will be noted also that the report is concerned mostly with the cardiovascular system. This does not mean that other systems have been neglected by investigators.

I cannot fail to mention that the surgeons who used to administer anesthesia themselves or direct untrained persons to administer it under their supervision during an operation can now devote their entire attention to the surgery at hand. This is possible because especially trained physicians now serve as anesthesiologists, and they can also cope with such emergencies as may arise during or after the period of anesthesia.

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## CONTRIBUTING AND ADVISORY EDITOR

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ESTHER M. GREISHEIMER, M.D., Ph.D., was born in Chillicothe, Ohio, in 1891. She earned her B.A. degree at Ohio University, her M.A. degree at Clark University, her Ph.D. degree in physiological chemistry at the University of Chicago, and her M.D. in 1923 at the University of Minnesota.

She remained at the University of Minnesota as researcher and teacher. She went to Europe in 1927, spending three months in Berlin studying voluntary nerve impulses and three months in London at University College studying glycogen formation.

In 1935 she left the University of Minnesota as an associate professor of physiology to become professor of physiology at Woman's Medical College of Pennsylvania, Philadelphia. Following her eight years at WMC she spent a short period at University of Minnesota Hospital as a resident anesthesiologist. She then accepted a position at Temple University as professor of physiology in which she could spend her time in teaching and research.

In addition to her textbook "Physiology and Anatomy," which has been reset in its seventh edition, she has over 120 scientific publications to her credit. Organizations of which she is a member are: American Physiology Society, American Association for the Advancement of Science, American Medical Association, Philadelphia Anesthesia Society, Sigma Xi, Alpha Omega Alpha, Phi Beta Kappa, Sigma Delta Epsilon, and the New York Academy of Sciences.

From November 1, 1956 to June 30, 1961, Dr. Greisheimer was Research Professor of Anesthesiology, during which time she continued with her research. As of July, 1961, she is Research Professor of Physiology and is now writing and teaching anatomy and physiology to nurses.

# Cholesterol Metabolism in Dogs; New Findings*

Oswald Mowatt, B.S.

THE PAST DECADE has experienced a rapidly growing consciousness of the pre-eminence of cholesterol metabolism in biological and medical sciences. Cholesterol appears to be the precursor of several profoundly important body chemicals including sex hormones, adrenal cortical hormones, vitamin D, and bile acids.[1] Cholesterol is also one of the major chemical components of the lesions in atherosclerosis, cholelithiasis, and xanthomatosis.[2] The many diverse facets of cholesterol metabolism, with their complex interrelationships, offer a tremendous challenge to investigators in basic biochemistry and physiology as well as in clinical medicine.

In experimental laboratories dogs have been widely used in studies on cholesterol metabolism. The salient features of cholesterol metabolism in the dog include a high rate of cholesterol synthesis in liver tissue;[3] rapid interchange (mixing) of newly synthesized or newly absorbed cholesterol molecules between plasma, blood cells, and liver; rapid suppression of hepatic cholesterol synthesis following the absorption of ingested cholesterol;[4] derivation of the greater part of plasma cholesterol from synthesis in the liver, unless a cholesterol-rich diet is ingested in which case the diet becomes the major source of plasma cholesterol, cholesterol synthesis in the liver then being almost totally inhibited;[5] a half-life of plasma cholesterol of about 8 days (that is, a turnover time of about 12 days) when calculated from the rate that isotope labeled cholesterol molecules disappear from plasma;[6] disposal of most of the plasma cholesterol by conversion into bile acids;[7] and derivation of most, if not all, of the bile acids from cholesterol, presumably from the blood-liver cholesterol pool.[8]

In the study reported in this paper,* the original plan was to compare the plasma cholesterol turnover rates in normal dogs (group A), in dogs with hypothyroidism (group B), and euthyroid dogs with a biliary fistula (group C). On the basis of the existing body of cholesterol metabolic data and theories, dogs with hypothyroidism were expected to show a slower rate of plasma cholesterol turnover[9] and the dogs with a biliary fistula were expected to show a much faster rate than normal.[10] It was hoped that these data would permit an evaluation of plasma cholesterol dieaway curves and indicate whether such curves accurately reflect true turnover (the balance of synthesis and absorption versus destruction and excretion).

## METHOD

Adult mongrel dogs weighing 7 to 10 Kg. were used.† Group A consisted of normal dogs with intact thyroid and biliary systems. In group B, hypothyroidism was induced by administration of two separate doses of 25 millicuries of radioactive iodine ($I^{131}$). During the

*This paper won the second award in the Research Contest sponsored by BRANCH TWO, Chicago, commemorating the ninety-fifth anniversary of the founding of the Mary Thompson Hospital, Chicago. The paper was presented at the meeting of BRANCH TWO, April 12, 1961.

*Mr. Mowatt received his B.S. degree from Roosevelt University, Chicago, and is a junior at the School of Medicine of Loyola University, Chicago.*

*Supported by the Schweppe Foundation of Chicago, and the Ames Company, Inc., of Elkhart, Ind.

†The laboratory phase of this work was done in the Department of Pathology, Evanston Hospital, Evanston, Ill., and in the Animal Surgical Laboratories and the Department of Pathology of Presbyterian-St. Luke's Hospital, Chicago.

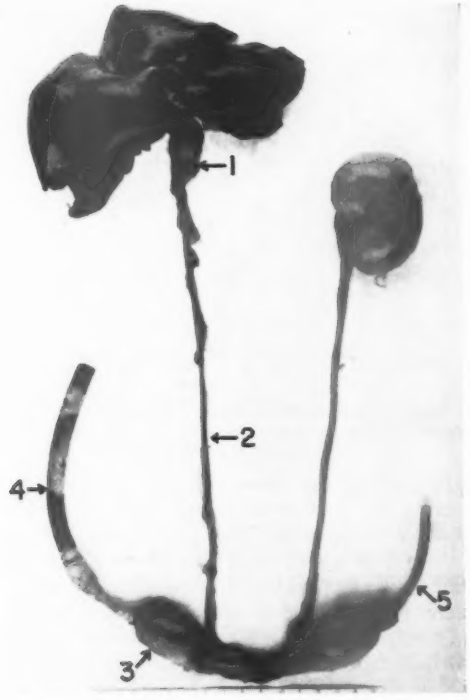


Fig. 1. Bile outflow tract in dogs with a biliary fistula. 1—gallbladder; 2—right ureter; 3—right hemibladder; 4—bile collecting catheter; 5—urine catheter.

succeeding 18 months before these metabolic studies were done, hypothyroidism was manifested by varying degrees of sluggishness, thinning of hair, and elevation of the plasma cholesterol level to more than twice the control values, even though the diet supplied little cholesterol. Serum protein-bound iodine values were in the same range for hypothyroid and normal dogs and were unreliable as an index of the thyroid function. In group C, the biliary fistulas were prepared according to the technique of Gabel and Economou.[11] To avoid ascending cholangitis and hepatitis, which is commonly associated with external fistulas that drain the bile directly from the gall bladder or bile ducts, and to simplify bile collection, a two-stage surgical procedure was used. Only female dogs were used. In the first operation the urethra was ligated and transected. The urinary bladder was then bisected and made into two hemibladders which were cannulated, the cannulas being brought through the skin by abdominal stab wounds. After partial recovery the second operation was carried out: the common bile duct was ligated and transected. A nephrectomy on the right was performed in a manner to spare the renal pelvis, which was then anastomosed to the fundus of the gall bladder. The resulting biliary renal fistula allowed the flow of bile from liver—via the hepatic duct—to cystic duct, gallbladder, ureter, hemibladder, and cannula and into a collecting bag placed on the abdomen of the dog (Fig. 1).

In all groups, plasma cholesterol turnover rates were determined by administration of a single dose of 25 microcuries of 4-radioactive carbon ($C^{14}$)-cholesterol mixed with .5 Gm. bile acids (to aid absorption), with radioassay of serial blood samples and measurement of the rate of disappearance of plasma cholesterol radioactivity. The diet throughout the control and experimental studies consisted of commercial dog chow with occasional skimmed milk supplements given (by stomach tube) to the dogs with biliary fistula in an effort to minimize their progressive weight loss. After the administration of the radioactive cholesterol, blood samples were taken twice weekly from all animals. Total bile collections were made on the dogs with a biliary fistula, with most of the collections taken at the same time that blood was drawn.

## RESULTS

*Group A.* Eight animals have been studied. Figure 2 illustrates the typical curve obtained for plasma cholesterol turnover in normal dogs. The data shown for this dog fit in the range of normal as determined in other dogs in this group and in published papers of other workers. The dog received 25 microcuries of

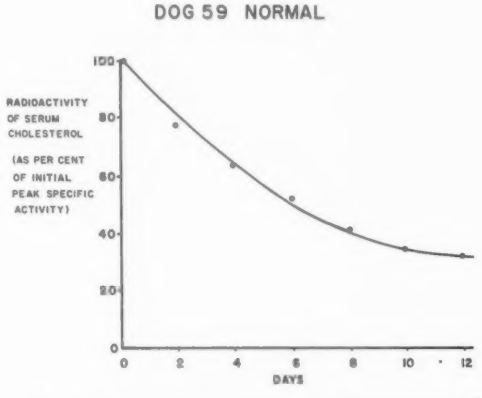


Fig. 2. Representative curve for disappearance of $C^{14}$-labeled cholesterol from plasma of normal dog.

4-radioactive $C^{14}$ cholesterol, via stomach tube; the first blood sample, taken 2 to 3 days later, is shown to have 100 per cent radioactivity, which does not mean that 100 per cent of the dose was absorbed but simply that this was the peak activity obtained. Two days later the plasma cholesterol radioactivity had fallen to 78 per cent of the peak value, and so forth as shown. The slope of the curve is somewhat faster initially than later on, probably because of the initial loss of the radioactive molecules from plasma by mixing into the nonradioactive cholesterol in other tissues. The mixing process is probably complete after 4 to 5 days, and the remaining part of the curve is believed to represent more accurately the true turnover of plasma cholesterol. The turnover rate, determined from the slope of the die-away curve, is somewhat slower in many control dogs than in the one shown.

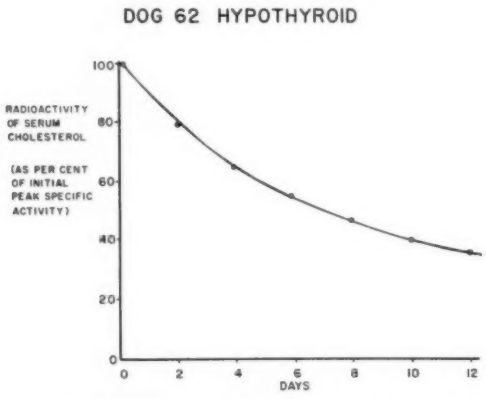


Fig. 3. Disappearance of $C^{14}$-cholesterol from plasma of hypothyroid dog.

*Group B.* Five animals have been studied. Figure 3 shows the plasma cholesterol turnover curve in a dog with hypothyroidism who is representative of this group. The slope of the curve is slightly less than, but generally quite similar to, the curves for normal dogs; however, considering that the total cholesterol levels were about twice as high in the hypothyroid dogs as in normal dogs, the nearly normal turnover time means that almost twice as much cholesterol was being "turned over" per day, which, if true, is a surprising condition to find in an animal with hypothyroidism.

*Group C.* Six animals have been studied. Figure 4 shows a plasma cholesterol turnover curve for a dog with a biliary fistula. The

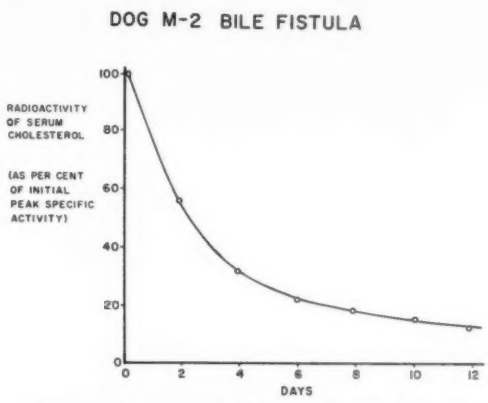


Fig. 4. Disappearance of $C^{14}$-cholesterol from plasma of bile-fistula dog.

first part of the curve is steep, meaning that during the first several days radioactive cholesterol disappeared from plasma much faster in the dogs with a biliary fistula than in either normal or hypothyroid dogs. This is not surprising; in fact it is to be expected, because of the open biliary fistula permitting the absorbed labeled cholesterol to move rapidly through the blood and liver and out into the bile collection bag. However, after 5 to 6 days, the slope flattens and from that point on the remaining labeled cholesterol molecules disappeared no faster from the dogs with a biliary fistula than from normal dogs. This was unexpected. We had expected the entire curve of the fistula dogs to have a much steeper slope than that of the normal dogs.

Figure 5 compares the turnover rates of the three groups of dogs, using the data from the animals shown in figures 2, 3, and 4 as representative of their respective groups. The first column shows the percentage loss of plasma cholesterol radioactivity during the first five days after the peak radioactivity value was obtained. The second column shows the percentage loss of plasma cholesterol radioactivity from the seventh to the twelfth day after the peak value. Each dog shows a greater percentage loss during the first five day period than during the second five day period, but more important is the similar rate of loss of plasma cholesterol in each dog during the second five days. A slower rate of loss in the dogs with hypothyroidism and a faster rate of loss in the dogs with a biliary fistula had been expected.

Figure 6 compares the specific radioactivity of cholesterol with the radioactivity of

| DOG | % LOST DAY 1-5 | % LOST DAY 7-12 |
|---|---|---|
| NORMAL | 45 | 35 |
| HYPOTHYROID | 44 | 34 |
| M2 BILE-FISTULA | 77 | 35 |
| M5 BILE-FISTULA | 67 | 33 |

Fig. 5. Comparison of the rates of disappearance of $C^{14}$-labeled plasma cholesterol in the three groups of dogs, using data from animals shown in Figs. 2, 3, and 4.

bile acids in samples taken at the same time. In general the specific activity of plasma cholesterol was four to eight times greater than that of bile acids. However, if there were a direct source-product relation between plasma cholesterol and bile acids—as generally believed—the two should have nearly equal specific activities. In dog M-5, the contrast between the specific radioactivity of the bile acids and the cholesterol of the same bile sample makes it obvious that most of the bile acids had a different source than that of the bile cholesterol, which apparently was derived entirely (or nearly so) from the plasma-liver cholesterol pool.

## COMMENT

The similarity of the plasma cholesterol turnover rate in dogs who were normal, had hypothyroidism, and had biliary fistulas justifies a new consideration of the meaning of this type of curve. It is entirely possible that plasma cholesterol turnover rates, as generally calculated from disappearance or die-away curves, are erroneous through the inclusion of one or more processes other than those that comprise true metabolic turnover (synthesis and absorption balanced by destruction and excretion). For example, the disappearance of labeled cholesterol molecules from the plasma of hypothyroid dogs may have a greater than normal rate and degree of mixing with extravascular cholesterol pools; this would mask any slowing of the true turnover rate.

From this study it appears that there is not an easy, rapid, direct transfer of cholesterol from plasma into the bile (both as cholesterol and bile acids) as generally believed, but that there is a surprising degree of separation of plasma cholesterol and biliary cholesterol and bile acids. Although the specific activity of the biliary cholesterol nearly equaled the plasma cholesterol (indicating that the cholesterol in the bile did come from the plasma), the total amount that was present in the bile was small. This also explains why biliary fistulas did not lower plasma cholesterol to subnormal levels. It is now clear that in such dogs only a minute amount of plasma cholesterol enters the bile as cholesterol, and that most of the bile acids excreted do not come from plasma cholesterol, so that the drain on the plasma cholesterol is far less than one might expect.

The difference in specific activity of bile acids and plasma (or biliary) cholesterol indicates that, in dogs with a biliary fistula at least, only a small portion of the bile acids comes from plasma cholesterol. The remaining portion may come from cholesterol but it would have to be cholesterol which the liver cells synthesized and then immediately converted into bile acids with little or no equilibration with the labeled cholesterol of the plasma-liver cholesterol pool.[12] An alternate and challenging possibility is that a large portion of the bile acids is synthesized from simple precursors by a pathway that bypasses cholesterol.[13]

## SUMMARY

These studies on plasma cholesterol turnover in dogs are at variance with general

| ANIMAL | DAYS AFTER C-14-CHOL. | SPECIFIC ACTIVITY CPM/Mg | | |
|---|---|---|---|---|
| | | PLASMA CHOLESTEROL | BILIARY BILE ACIDS | BILE CHOLESTEROL |
| M-2 | 4.5 | 1858 | 446 | |
| | 8 | 970 | 202 | |
| | 11.5 | 741 | 231 | |
| M-5 | 3.5 | 675 | 89 | 579 |
| | 7 | 429 | 41 | 285 |
| | 10 | 234 | 23 | 169 |
| | | | 14 | 98 |
| | | | 7 | 77 |
| | | | 4 | 53 |
| | | | 4 | 42 |
| | | | 4 | 20 |

Fig. 6. Comparison of specific radioactivity of plasma cholesterol, bile cholesterol, and bile acids, of blood and bile samples taken at the same time.

metabolic concepts in at least two points. First, the surprising similarity of plasma cholesterol turnover times in dogs with a biliary fistula, with hypothyroidism, and in normal dogs raises a question of the validity of this type of metabolic measurement as it is usually interpreted. Second, plasma cholesterol was the source of only a lesser part of the bile acids in the bile collected from dogs with a biliary fistula and the origin of the remaining portion remains to be determined. The data in this study are consistent with the possibility that much of the bile acids may be derived by synthetic pathways that do not include cholesterol as an intermediate step.

ACKNOWLEDGEMENT

Appreciation is expressed to Drs. A. Gabel and S. Economou of the Department of Surgery of Presbyterian-St. Luke's Hospital, Chicago, for their generous assistance in the surgical preparation of the biliary fistulas on the dogs, and to Dr. George E. Cox and Miss Kaye Asdel of Evanston Hospital, Evanston, Ill., for their assistance in the biochemical analyses and compilation of the data.

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## CORRECTION

On page 702 of the September, 1961, issue of THE JOURNAL, the slate of candidates was presented. The number of councilors to be elected was incorrectly stated as five. There are four councilors to be elected at the annual meeting.

For an explanation of the function of the councilors, see the President's Message on page 785 of this issue.

# Custody of Infant Children in Medical Neglect Cases

I. H. Rubenstein

UNDER THE LAW, MEDICAMENTS and medical attention provided to an infant, when his health or physical condition requires them, are necessaries because they answer the bodily needs of the infant.[1] By law, parents are under a legal duty to care for their young in sickness and health and to do whatever may be required for their care and maintenance, including the provision of medical and surgical care, if necessary.[2] The failure to furnish such medical care is a public wrong, and if the infant child is injured by such omission, the parent can be convicted of the criminal neglect of his child;[3] should the child die as a result of such medical neglect, then the parent would be guilty of manslaughter.[4] The law is the same in such cases even though the neglect of the parents was due entirely to their superstitious or conscientious opinion that it is morally wrong and irreligious to provide medical and surgical care for their children or themselves.[5] This rule has been applied particularly to parents who are members of faith healing cults.[6] In the leading case in point, Rex V. Lewis,[7] the defendant, a Christian Scientist, was the father of a 6 year old boy. When his son became ill with diphtheria, he called in a Christian Science "demonstrator" to treat his son, who died soon after. The father was indicted for his failure to provide his minor son with necessary medical care. In affirming the manslaughter conviction of the father, the Ontario Court of Appeals declared: "No matter how earnestly a parent might believe in the efficacy of Christian Science treatment, as developed in Mrs. Eddy's handbook of the doctrines of the sect, yet if they (the Jury) came to the conclusion that medical aid and treatment was necessary, they ought also to find that it would not be furnished by means of mental treatment by a Christian Science 'demonstrator'. . . . It would be shocking if in the case of infants . . . incapable of protecting themselves, they and the community in which they live were to be exposed to the danger from contagious or infectious diseases which the instructed common sense of mankind does not . . . find . . . to be curable by means of subjective or mental treatment."

With this understanding of the criminal liability of a parent who neglects to provide the necessary medical care for his children, the first point to consider is the right of the courts to order an immediate change of the legal custody of the infant in order to effect prompt, necessary medical and surgical care where its health or life has been endangered by the medical neglect of its parent. This judicial action is generally undertaken under statutes* which seek to protect children from neglect or dependency caused by the conduct of their parents. These statutes are quasi-criminal in nature because where there is a serious medical neglect of an infant child on the part of its parent, the State, as parens patriae through the agency of the courts, has the right to invade such custody for the purpose of compelling specific performance of a parental obligation to furnish the infant with immediate necessary medical care.[8] These statutes have been liberally construed by the courts to effectuate their purpose to have children examined physically and psychiatrically to determine what is best for the child

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*See local statutes on Prevention of Cruelty to Children and Juvenile Court Acts.

medically,[9] to provide appliances and devices which are necessary to physically handicapped children,[10] and to provide medicaments,[11] blood transfusions,[12] and surgical operations.[13]

A splendid illustration of the prompt action taken by courts to enforce immediate necessary medical care to a seriously ill infant, despite the opposition of its parents, is presented in the prominent case of People v. Labrenz et al.[14] The State's Attorney in Chicago filed a petition in the Circuit Court alleging that Cheryl Labrenz was only a few days old and a patient in a hospital, that her parents were wholly unwilling to care for her, that she had become a dependent child, and requested that the child be taken from her parents and placed under the guardianship of a suitable person to be appointed by the court. At the hearing the medical testimony showed that the child suffered from erythroblastosis fetalis and that the child would die or suffer a severe brain injury unless a blood transfusion was given and that the transfusion would not involve any serious hazard. The parents of the child testified that their refusal to consent to this blood transfusion was based upon their belief that such transfusions are forbidden by the Scriptures. The Court appointed its Chief Probation Officer to be the guardian of the person of the infant child and directed him to consent to an immediate blood transfusion, which was effected soon after. The propriety of this action by the Circuit Court was challenged by the parents in their appeal to the Illinois Supreme Court. This court held that the "jurisdiction which was exercised (by the Circuit Court) in this case stems from the responsibility of government, in its character as parens patriae to care for children within its jurisdiction and to protect them from neglect, abuse and fraud. . . . Historically exercised by courts of chancery . . . it is of ancient origin. That ancient equitable jurisdiction was codified in our Juvenile Court Act, which expressly authorizes the court, if circumstances warrant, to remove the child from the custody of its parents and award its custody to an appointed guardian. . . . The question here is whether a child whose parents refuse to permit a blood transfusion, when the lack of a transfusion means the child will certainly die or at best will be mentally impaired for life, is a neglected child. We entertain no doubt that this child, whose parents were deliberately depriving it of life or subjecting it to permanent mental impairment, was a neglected child within the meaning of the statute . . . It is next contended that if the Juvenile Court Act is held applicable, it deprives the parents of freedom of religion, and their constitutional rights as parents. . . . The right to practice religion does not include the liberty to expose . . . the child . . . to ill health or death. Parents (are not free to make) . . . martyrs of their children."

A review of these quasi-criminal cases reveals that before the courts will issue an order for a change of legal custody to effect immediate necessary medical care to an infant child, the following two elements must be clearly proved by competent medical evidence in each case: First, that the specific medical or surgical treatment to be provided is definitely, unquestionably, and immediately necessary to save the life or to protect the health of the child;[15] second, that the medical or surgical treatment to be rendered is not hazardous to the life or health of the child.[16]

The second point is concerned with (1) the custody of infant children in divorce, separation, and adoption cases in which the religious beliefs and practices of the applicant for its custody would cause such applicant to neglect to provide it with prompt and necessary medical and surgical care, and (2) the action the courts will take in these cases to protect the child by a change of custody or other appropriate order.[17]

In the following three cases, the applicant for the custody of the minor child had fixed orthodox religious beliefs against medical care, and, for that reason, lost the right to the custody of the child.

> The Trafford case[18] was decided by a New York court in 1890. Mrs. Trafford, a Christian Scientist, was the mother of two young girls. Her eldest child was taken ill with spasms. Mrs. Trafford called in a Christian Scientist to treat her sick child with silent prayer. The Christian Scientist sat by the sick child for eight hours while the latter continued to suffer from agonizing spasms. The child died about 24 hours after the onset of the illness. In habeas corpus proceedings instituted against Mrs. Trafford for the custody of her surviving 5 year old daughter, Lucy, the court stated that "in determining to whom the custody of Lucy should be awarded, that her present and future interests and good must be the controlling question. The welfare of the child is the object to be secured. Where will her health, education and morals be best cared for. . . . Should I award the custody of Lucy to the mother, she would if sick probably be treated as her sister was. . . . I think it unwise to make a

person entertaining such (Christian Science) views of treating the sick, the custody of a child so young as Lucy." Therefore, the court awarded the custody of Lucy to her paternal grandparents.

The Patterson case[19] was decided by an Ohio court in 1912. Mrs. Patterson was a Christian Scientist while her husband was not. They had one son, 20 years old, who had epilepsy. Due to the importunities of his wife, Mr. Patterson permitted their son to be treated by Christian Science, but finding no good results coming from this form of treatment, he terminated them over the strenuous objections of his wife. Mr. Patterson had often criticized his wife's belief in Christian Science, which had infuriated her. Mrs. Patterson instituted divorce proceedings against her husband. At that time, their son was in a hospital. Although they had both stated that they would never live together again, the court stated that "such strained relations are not grounds for divorce.[20] . . . Under the peculiar circumstances of this case (the mother being a Christian Scientist), I shall give the custody of the boy to the father." The award of custody of the epileptic son to the father was obviously decreed to assure that the son would be provided with the proper medical care rather than Christian Science treatments.

In Battaglia v. Battaglia,[21] a New York court awarded custody of a "child of tender years" to the father in his suit for separation against his wife, because the evidence showed that she was a fervent member of the Jehovah's Witnesses and, as such, had religious scruples against blood transfusions and that this belief of hers would endanger the health and even the life of their child.

In the following two cases, however, it appears that the parents, natural and adoptive, who sought the custody of the infant child, although they were Christian Scientists, had assured and also proven to the courts that they had and would continue to provide necessary medical care to the child if it would be permitted to remain in their custody.

In the case of Gluckstern[22] the plaintiff filed an action of separation against her husband. The parties, both Jewish, were married in 1934 and had lived their lives in that faith until 1950 when the plaintiff became a Christian Scientist. According to her husband, his wife brought the preachings of Christian Science into their home, attempted to proselytize their children, humiliated the husband, left Christian Science literature about the house, and declined to give their children the necessary medical attention. However, there was evidence that the wife did provide medical care for their children. In a paradoxical opinion, the New York court admitted at the outset its grave apprehension as to the awarding the custody of their 6 year old son to the mother because she was a Christian Scientist and, as such, there was always present the grave danger of its medical neglect.[23] However, as the mother in the past had provided necessary medical care for her son, and, furthermore, had assured the court that she would continue to furnish him with such care whenever necessary, the court awarded her custody of her son subject to the express condition that she should have him examined at least once a month by a physician and to be guided solely by the latter as to the medical treatment required by her son. It is quite obvious that if at anytime the father could prove that his wife failed to provide their son with this monthly medical examination or necessary medical care that, in either such instance, he could regain the custody of his son.

In Eggleston v. Landrum,[24] the petitioners were the aunt and uncle of a 4 year old boy whom they were seeking to adopt. The petitioners attended a Christian Science church but were not members. Since the boy had been in their care, they had procured medical care for his circumcision, smallpox vaccination, and inoculations against diphtheria, whooping cough, and typhoid fever. The boy's paternal grandparents filed their motion for the purpose of showing the unfitness of the petitioners to be his adopted parents because they were Christian Scientists, and, as such, would not provide him with the necessary medical care. In its scholarly opinion, the Mississippi Supreme Court declared: "When we consider, in these modern times, the remarkable successes from the wonder drugs and the marvelous feats of surgery, it is almost unbelievable that a rational human being can become so fanatical in his adherence to creed that he would deny himself these great means and agencies of relief and repair, especially if he is suffering with some substantial malady. Of course, if he is an adult, and in his right mind, Society might perhaps let him go to his death if he so chooses. But an enlightened Society will not permit the great healing medium of modern medicine and surgery to be denied to children, regardless of conscientious belief of their parents, whether such parents be natural or adoptive. . . . There can be no doubt, under the doctrine of parens patriae, that the State has the sovereign power of guardianship over persons under disability (infant children), and it alone has the right and power to determine the recipient of the privilege to adopt one of its wards. To insure the best interest of a child, the power of the State transcends the right of the natural parents; and if they are unfit to have custody (because of their belief in Christian Science), their children may be taken away from them." In holding that the petitioners were entitled to adopt the child, the court pointed out that they were merely "students" of Christian Science and not believers in all its dogmas but accepted it with reservations; that they had provided all of the necessary medical care for the child since it had been in their custody, and that they had no conscientious scruples against a physician, surgeon, or both attending the child whenever necessary.

A review of the preceding four cases that dealt with Christian Scientists who, as parents, natural or adoptive, sought the custody of infant children in suits for divorce, separation, or adoption, reveals the law on this point to be as follows: Where a Christian Scientist is an uncompromising believer in this faith heal-

ing cult, whose single tenet is the nonexistence of all human ailments, injuries, and diseases, the courts will refuse to grant him custody of an infant child, regardless of his relationship, wealth, morals, and standing in the community. The reason for this rule is evident from the constant and inherent danger of eventual medical neglect of an infant child who is in the custody, charge, and care of such a typical Christian Scientist. However, where a person is merely a "student" of Christian Science, or a Christian Scientist who accepts its faith healing tenet with "reservations" and the evidence shows that he has provided the infant child, of whom he is seeking custody, necessary medical care, then, in such cases, the courts may permit him to have its custody.

However, the courts in the Gluckstern and Eggleston cases overlooked one point: A parent who is a Christian Scientist, may be willing to provide necessary medical care to the infant child in his custody, yet will not do so for himself and, because of his disbelief in the existence of disease or in the strict necessity of personal hygiene or in sanitary and quarantine measures, will succumb to an infectious or contagious disease more readily than the average person and as a result will be a disease carrier in constant close contact with his minor children in his custody, and would thus endanger their health and even their lives by such disease. This point is illustrated by the following recently decided cases. In 1925 a sick young girl was barred from the Minneapolis public school because her father, a Christian Scientist, refused to send her to a physician for medical examination and treatment.[25] In 1952 a student who was a Christian Scientist was barred from registration at the University of Washington because she refused to submit to the tuberculosis examination that was required of all students before admission to the University.[26] In 1959 a school board in a small town in New Jersey obtained an injunction against a Christian Scientist to put a permanent stop to her repeated attempts to have three unimmunized children, of whom she had custody, admitted into the public school.[27]

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2. "The standard of determining whether there has been a criminal neglect is (at what time and occasion) would an ordinary prudent person solicitous for the welfare of his child, and anxious to promote its recovery deem it necessary to call in the services of a physician." People v. Pierson, 176 N.Y. 201, 205-206, 68 N.E. 243 (1903).

3. Owens v. State, 6 Okla. Crim. 110, 116 Pac. 345 (1911); Oakey v. Jackson, L. R. 1 K. B. (1914) 216.

4. Queen v. Morby, L. R. 8 Q. B. Div. (1882) 571; State v. Staples, 126 Minn. 396, 148 N. W. 283 (1914); Stehr v. State, 92 Neb. 755, 139 N. W. 676 (1913); State v. Barnes, 141 Tenn. 469, 212 S. W. 100 (1919).

5. 29 Corpus Juris 1159; 10 American Law Reports 1146; Wharton on Homicide (1907 Ed.) #452; Prince v. Mass., 321 U. S. 158, 166-167 (1944).

6. Ibid.

7. 6 Ontario L. R. 132, 1. B. R. C. 732 (1903).

8. 43 Corpus Juris Secundum, 64-65.

9. Mitchell v. Davis, 205 S. W. (2d) (Tex) 812 (1947); In re Carstairs, 115 N. Y. S. (2d) 314 (1952); In re Rotkowitz, 25 N. Y. S. (2d) 624 (1941).

10. In re Lewis, 15 N. Y. S. (2d) 708 (1939).

11. Mitchell v. Davis, supra.

12. Morrison v. State, 252 S. W. (2d) (Mo.) 97 (1952); People v. Labrenz et al, 411 Ill. 618, 104 N. E. (2d) 769 (1952).

13. In re Vasko, 263 N. Y. S. 552 (1933); In re Rotkowitz, supra.

14. 411 Ill. 618, 104 N. E. (2d) 769 (1952).

15. In re Seiferth, Jr., 309 N. Y. 80, 127 N. E. (2d) 820 (1955).

16. In re Hudson, 13 Wash. (2d) 673, 126 Pac. (2d) 765 (1942).

17. 66 American Law Reports (2d) 1419, 20. In Heinemann's Appeal, 96 Penn. St. 112, 42 Am. Rep. 532 (1880), it was held that a court can deprive a parent of the custody of his minor children when he willfully neglects to provide them with necessary medical care by a qualified physician.

18. 12. N. Y. S. 43.

19. 12 Ohio N. P. (N. S.) 601.

20. Contra. Robinson v. Robinson, 66 N. H. 600, 23 Atl. 362 (1891), where a druggist obtained a divorce from his wife, who was a Christian Science "Doctor," and whose practice of giving Christian Science treatments caused him to be ridiculed.

21. 172 N. Y. S. (2) 361 (1958). Similar case, Commonwealth v. Kauffmann, 69 Montag. Co. (1953 Penn.) L. R. 292.

22. 158 N. Y. S. (2d) 504 (1956); affirmed despite various technical appeals.

23. For 25 days, the mother, a Christian Scientist, neglected to provide necessary medical and surgical treatment to her badly injured 8 year old daughter. As a result, her daughter now has a permanent pelvic deformity which will seriously interfere with normal childbirth, Lange v. Hoyt, 114 Conn. 590, 159 Atl. 575 (1932).

24. 210 Miss. 645, 50 So. (2d) 364 (1951). In accord, Johnson v. Borders, 155 Ark. 218, 244 S. W. 30 (1922), where the father was granted custody of his 14 month old son, because, although he believed in divine healing, he also believed in physicians and the necessity of medical care.

25. State v. Probst, 165 Minn. 361, 206 N. W. 642.

26. State v. Armstrong, 39 Wash. (2d) 860, 239 Pac. (2d) 545.

27. Board of Education v. Maas, 152 Atl. (2d) 394.

# Medico's Invitation to Medical Organizations

Report on the Medico Meeting Held at the One-Hundred and Tenth Meeting of the AMA, New York City, June 26, 1961.

June 26, 1961 — New York City

NONE OF US NEEDS briefing on Thomas A. Dooley, M.D. He had a vision that inspired other physicans to serve, inspired the general population to give, and inspired the pharmaceutical houses to contribute of their supplies. This inspiration must not disappear since he is no longer with us. His work is far from completion.

American medicine has a double challenge today: (1) to erase medicine's undesirable public image, largely built by the political advocates of socialized medicine at home, and (2) to answer the grim story of malnutrition, disease, and their consequent deformities abroad. Are the two tasks inconsistent? Dr. Peter D. Comanduras, who in 1958 was co-founder of Medico with Dr. Dooley, says definitely: no.

The world today is watching the American physican: Whatever an American physican does abroad reflects on American medicine everywhere. Medical organizations must see that our exported medicine is of the best. As a group, physicians must assume responsibility for both the good and the bad. American physicians offer a proven and effective physician-to-patient service by which the sick and crippled of the world may understand the value we place on human dignity.

The medical specialties of orthopedics, pediatrics, internal medicine, ophthalmology, and surgery, as well as general practice, were represented at the meeting. The American Medical Women's Association was one of the invited groups, with its long history of medical relief through the American Women's Hospitals and its present collaboration with the Pan American Medical Women's Alliance and the Medical Women's International Association.

A consolidated program under organized American medicine with the functioning offices of Medico was proposed. It would start with the basic concepts on which Medico has worked: (1) to bring direct physican-to-patient medical aid to areas where the need is greatest, treating the sick who otherwise would receive no medical attention; and (2) to teach and train others to give this kind of medical service. There would be service opportunities for volunteers, either for a few years of postretirement service, or short periods of consultative work during active practice. Through the numerous specialty groups represented, a call for volunteers could be sent out for a special need in Cambodia or Laos or the mountains of Bolivia.

The opportunities for medical study and postgraduate work both in the United States and the emerging countries were outlined. The research training program for our own student physicans in Haiti has the possibility of extension in other places and other fields. Such a medical Peace Corps sparks the imagination of our youth and promises to add new glamour to the study and practice of medicine, which the recruiting effort badly needs.

We must step up our medical training programs both here and abroad for promising nationals of the emerging countries, that they may fill the continuing need of their people. "No ambassador is as good as young doctors trained to go back and serve their own people," one of the speakers remarked.

Senator Lister Hill of Alabama spoke of the "Health for Peace Bill," making a Bureau of International Medical Research to use counterpart funds frozen in the various countries that have been the recipients of surplus foods. Twenty-five thousand dollars have been used

in Brazil to train 30 brace makers who have already fitted 3,000 crippled persons with prostheses. Dr. Howard Rusk reported that these frozen funds will be allocated for similar projects if the physicians show adequate leadership.

Medico offers to organized medicine a cooperative plan that will intermesh the facilities of Medico with the professional skills of specialty groups and other voluntary medical organizations. This will be done by including on the Medico Board a representative from each co-operating group. Medico will not absorb their functioning projects, but will provide a clearing house for specialized services that may be called on by other members of the group.

The invited organization representatives voted to return to the Boards of their respective groups and present the following recommendations:

1. We approve the principle that in Health and Medicine we have an opportunity to better international understanding.

2. We recommend that a member be nominated to serve on the board of Medico to formulate basic plans and the principles to carry out these aims.

3. We recommend that an invitation shall be given to the Canadian physicians to participate.

The AMWA is in receipt of a letter from Dr. Peter D. Comanduras, Secretary-General of Medico, asking that he or a representative be permitted to appear before our next meeting to personally present pertinent information regarding this new mode of cooperation between Medico and our organization. This is one of the opportunities you will have at the annual meeting in Cleveland on November 30, December 1 and 2, 1961.

*—Jessie Laird Brodie, M.D.*
Executive Director, AMWA

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## *Membership Is My Business*

Membership is our business—it begins with the Executive Director, then the Executive Board, then the Branches, and finally the members. The Executive Director knows the value of having all women physicians joined together in common interests and efforts of endeavor. The Board realizes the importance of such a strong union. However, by the time this idea reaches the Branches, the over-all plans and purposes may seem a little remote, and when the need for all inclusive membership drifts down to the individual member, it may seem quite unimportant.

Our goals are many and ambitious, our opportunities unlimited.

One phase of our program that, in itself, makes the AMWA of outstanding worth, is our interest in the teen-age girls. We encourage them to consider medicine as the means toward a complete, full life. An excellent start has been made in this direction through the pamphlet "So You Want to Be a Doctor?", but this program needs continued development and growth. Our Scholarship Loan Fund makes medical education possible to some of these girls. This fund needs to be greatly increased in size and scope. The Junior Branches give them an opportunity to meet women physicians for advice, counsel, and encouragement.

Should not all women physicians want to share in this?

*—Margaret Jane Schneider, M.D.*

# American Medical Women's Association Scholarship and Loan Funds for Medical Education

AN ANONYMOUS GIFT of $100 in September, 1923, began the AMWA Scholarship Loan Fund for the education of young women in medical schools. Today that fund of approximately $70,000, carefully nurtured and administered over the years, has assisted 122 women to meet their financial needs during the expensive years in medical school. The Fund has been continuously used, $40,000 being out on loan at the present time.

Three months after the first gift, a second one of $100 was made by Mr. Charles Foster. In 1926, $1,400 from Dr. Anna Blount, Dr. Mary Bates, and Mrs. Seaman, a devoted friend of Dr. Kimball, together with an additional $1,250 given a year later by Dr. Kimball and Mrs. Seaman, provided the funds for the active beginning of the AMWA Scholarship Loan Fund. Many contributors over the years have kept the fund active; the largest contribution, $22,000, came in 1954 from the estate of Dr. Anita Mühl, including income from oil and gas royalties that now amounts to approximately $200 annually. The terms of Dr. Muhl's will generously did not restrict the use of either principal or interest.

In 1958 Nu Sigma Phi, a medical women's sorority, disbanded, and its Scholarship Loan Fund of $3,480.79 was released to the AMWA Scholarship Loan Fund "to be designated as the Nu Sigma Phi Scholarship Fund; . . . to help women medical students to further their medical education."

The formal establishment of the Scholarship Loan Fund with a definition of its terms was made at the annual meeting of the Association in Atlantic City, June 25, 1925. Stipulation was made "That the Candidate or Candidates accepted be of the highest character, the soundest educational preparation, the most promising personality, and that they be sent to A-1 Medical Colleges." It was suggested that the Fund should steadily grow by the active interest of members of the Association: "Not a few Medical Women out of love for their profession and belief in the great need of women in it, may well give while living or bequeath of their money to this Fund for the future." Furthermore it was suggested that "Many medical women are the trusted advisors of wealthy patients who would gladly see such Helpers and Advisors reproduced for the benefit of Society hereafter. A Scholarship endowed to the honor of such a beloved physician would have a strong appeal, and would constitute a gift to the permanent benefit of Society."

Notes from the Bulletin of the Association in 1927 and 1928, signed by its deeply interested Chairman, Dean Martha Tracy, M.D., indicated the further definition of policy concerning the Fund, as follows:

> The Committee, after careful consideration, has agreed upon the policy of granting awards only to students who have shown, through at least one year of creditable medical study, promise of ability to carry their courses to a successful completion. (October, 1926)
>
> It is clear that a permanent revolving scholarship fund can be of very great helpfulness to worthwhile medical students. . . . The committee should not be swayed by emotional consideration, but should weigh justly intellectual and personality and character qualifications of the candidates, as well as real financial need. (October, 1928)
>
> It is clear that a scholarship loan fund for able women students provides a service of inestimable value to its beneficiaries.
>
> It is equally true, however, that such a loan service . . . should be based upon a permanent foundation, either by endowment or by guaranteed annual gifts which will maintain a working, distributable sum of not less than $2,000 a year for a sufficient period of years to cover the interval until the earlier awards shall be steadily returning. (July, 1931)
>
> Annual gifts from members and friends of the Association have constituted a revolving fund for the past six years. . . . The scholars of the Association receive annual grants of from $100 to

> $500. . . . to repay the loan in full within eight years after leaving the medical school. Payments on account are expected to begin three years after graduation.
>
> The 'scholar' is required to take out a life insurance policy—to the Association—to cover her loan.
>
> Thus the student is placed in a business-like relation to her creditor and the Association's investment in the young doctor is protected.
>
> Every effort is made to select young women of intellectual ability, as indicated by college achievement, and of the personality and physique to promise professional success. Other things being equal, preference is given to candidates in the third and fourth year of the medical course, whose record has been creditable to that point. (October, 1931)

Thus the policy for the administration of the Loan fund was well defined even 30 years ago. Recently, however, reappraisal of this policy in the light of changing needs has led to the presentation of this report and its newly acquired information.

On April 4, 1941, the American Medical Women's Association received $10,000 from Dr. Maude Glasgow as a trust fund to be known as the Janet M. Glasgow Memorial Scholarship Fund, which was designated for the Assistance of Women Medical Students. Only the interest of this fund could be used.

In 1954, a gift of $6,000 was received from Dr. Maude Glasgow and additional stocks were received from her estate in 1957. The fund totals $32,328.08 (Dec. 31, 1960).

The terms of this Fund greatly expanded and enriched the activities of the Association. Since 1958, one of the uses of the Glasgow Memorial Fund has been the granting of a prize of $100 annually to the women medical students graduating first in their classes. These awards have amounted to $2,200. The pamphlet, "So, You Want To Be a Doctor?", prepared to meet the needs of high school students, was sponsored through this fund, and a similar pamphlet designed for the college student is in preparation.

The decreasing number of applicants to medical schools and the now recognized shortage of physicians, a shortage that will probably increase to 3,000 in 15 years (according to Ward Darley of the Association of American Colleges) in part influenced AMWA to study its loan program.

As a basis for reorientation in the appraisal of the policies of the Association's Fund, two questionnaires were prepared and mailed to the deans of medical schools and to women who had received loans through the Fund (hereafter referred to as loanees). The former was designed to determine the existing need, to locate regional differences, and to determine the basis for selection of loanees in each instance. The latter questionnaire was to assist us in measuring the usefulness of the Fund, to obtain suggestions from those perhaps best qualified to give them, and, secondarily, to explore the reasons for financial need at the time of the loan. Analyses of these two sources of information follow.

### QUESTIONNAIRES TO MEDICAL SCHOOLS

Of the 85 medical schools that received questionnaires, 77 replied. The majority (67) indicated a need for student loans in varying degrees from very great to little. A dean of a Southwest Central school said that "Loan funds are one of the primary and basic needs in the present critical situation."

"We could use twice the loan funds we now have," added the dean of a Southwest school. From a North Atlantic school came the report that teaching and research funds were diverted to student loan funds because of the great need. The dean of a well-known Northeast school estimated a need for $75,000 in loan funds for 1960.

Opinion of the deans concerning the most desirable interest rate and repayment plan coincided with that of our own AMWA policy. The majority favored approximately 3 per cent interest with suggested liquidation of the indebtedness between 5 to 10 years after graduation. In general, regularity of payment and flexibility and clarity of the terms of repayment were the factors to be emphasized in the administration of loan policies.

Priority was given to upperclassmen by the majority of medical schools, who generally expressed reservations about loans to freshmen, maintaining that they have not yet "proved themselves." But a minority expressed uneasiness about this point of view: "Our philosophy is, if you don't get them started, they can't finish"; "Efforts should be made to provide financial assistance to freshmen as well as to upperclassmen." Similarly, many deans point out the difficulty freshmen have in getting profitable work, while still others indicated that freshmen should not have outside jobs.

### QUESTIONNAIRES TO LOANEES OF AMWA FUND

The enthusiastic replies of these women

physicians and medical students and the record of their activities in their medical careers as reflected in the answers were most rewarding; service, happiness, and success, all three, were discernable.

Sixty-two replies were received. Unfortunately many questionnaires were returned because of incorrect addresses. Some of these were women who married and changed their names so that tracing them would have been time consuming and difficult. Wide geographic distribution was found, with 24 states represented; the greatest number was from California (10), with Illinois, New York, and Massachusetts next in line. The unanimous recommendation of these women physicians for continuing the program was only a partial measure of their appreciation of the loan fund; two generous contributions were enclosed with the replies, two more have followed, and a request for advice in making bequests in wills was received as further measures of the gratefulness of these women who have received loans at a time when they were needed.

Various aspects of the AMWA's loan program were praised in such phrases as, "a long time to pay," "no pressure to pay in contrast to other sources," and "no collateral required." Perhaps the following quotation best summarized the reactions: "The loan made my education possible, and it was administered with tact, sympathy, and kindness in marked contrast to another." Only two adverse criticisms were made, the first regarding the requirement of an insurance policy and the second regarding the seemingly unnecessary, long "paper work" required in making a second and subsequent applications. Both of these policies, however, have already been modified.

Quite apart from the commonly recognized need for loans of many students who undertake an expensive education, there are special needs and difficulties encountered by women. They are often unable to earn as much as men, especially since certain highly paid jobs, such as heavy labor, are unsuitable for women. (One male student I knew saved almost $1,000 driving a truck during one summer.) Furthermore, living expenses may be greater for women; if dormitories are not provided, women must pick their living quarters with much more care, etc. And if an ambitious and talented family has several children who desire a medical education, the boys must be educated first. As one loanee (now in practice 20 years) said, "My parents were also educating three sons to be physicians, so their income was inadequate." Moreover, when a woman medical student requests a loan, she sometimes finds that her medical school has no loan funds for women. She may also encounter other obstacles that do not affect men. The following quotations from the questionnaires are illustrative:

> Thirty different organizations listed in "Scholarship and Loans" were unable to give me a loan because of the following: I was over thirty; was a woman; had no co-signer; was not applying for a specific project; was an individual and the specific fund was given in large amounts to schools and not to individuals. Only two of the funds helped me: The Women's Educational and Industrial Union in Boston and the AMWA.

> I would have been unable to complete my medical education at that time, and might never have returned had it not been for the scholarship loans which I obtained. At the time there were few Scholarship Loan Funds available to women at _____ Medical School, and personal loans were difficult to obtain on a long term basis. [This physician is now on the faculty of this medical school.]

> I was unable to obtain a loan from any other source for tuition in my senior year due to the fact that I was married and had a child. . . . I would never have finished medical school without this loan since married women students have extreme difficulty in securing loans from other sources.

Our questionnaire did not ask the marital status of the loanee when she was in medical school, but 16 of the 62 indicated they were married; 5 had a child while in medical school; and the husbands of three were also medical students. The financial strain in this latter situation must have been great.

> My husband and I were in professional school during the same period of time, and this loan added to our tight budget (part time work of each). . . . From quarter to quarter we were often unsure if one or the other would be required to drop out.

> Since both my husband and I were in school together, we had exhausted other loan sources. This was one source available to me which he did not have.

All of these 16 married women physicians are continuing their medical careers.

Financing education by summer employment, supplemented by extracurricular work was commonly practiced by these women, and, doubtless, was often burdensome. It was

also inadequate in the following instances, which are representative, no matter how many hours were spent.

> I shall forever be grateful for this help. I had borrowed all the school permitted me to borrow. My savings were exhausted, and the clerkship hours were so long, I could not work enough to meet expenses. If it had not been for this loan, I probably would have had to drop out for a year and save money by working full time.

> Although working full time throughout premed, summers in medicine and then full time my last two years, it was always a problem to meet tuition. Thanks to AMWA I was able to continue school. I hope this loan fund is kept active. It fills a need which is supplied by few other sources.

> I have always been exceedingly grateful to AMWA for helping me in a period when I had nothing. The loan which was granted for my senior year made that year immeasurably more pleasant for me, and I was able to work less outside of school and devote more time to extra study. Repaying the loan was one of the first things I tried to do after getting out in practice.

From the one column in the questionnaire labeled "Comments—especially your activities," an unusual record of service, distinctions, and contentment was evident. All except one, who failed to graduate after an illness, had continued in their medical careers; many were married and had children. One doctor whose husband is also a physician has 8 children and continues in active practice. There were honors to many of these 62 women; some of these may be listed.

- 4 in Who's Who of American Women (there may be more)
- 2 Chairmen of Departments in Medical Schools
- 2 Directors of Research and Public Health Programs
- 2 Department Directors of Hospital Services
- 1 Lieutenant Colonel in the U.S. Army
- 1 Who received a Citation as the Outstanding Alumna of the Year from her medical school (which had been unable to grant her a loan in medical school because women were not eligible for aid)

The varied activity of these 62 women (6 still in medical school) may be noted. Two were serving in foreign fields: one in Cambodia, and one as a missionary in Ghana for many years. Of the 35 out of medical school over 5 years, 8 are on academic staffs of medical schools. The medical specialties represented cover 12 fields, pediatrics, internal medicine, psychiatry, pathology, anesthesiology, and research being the most frequently listed.

## DISCUSSION

Thinking through all these sources of information and adding them to my own years of experience on a scholarship and loan committee in a medical school, I have definite ideas concerning the financial needs of a medical student. At no time should financial strain weigh so heavily upon a student that his education is jeopardized. This means that a plan should be worked out to meet his needs in co-operation with his medical school or lending source well in advance. Prompt payment of scholarships and loans or assurance to schools of tuition grants will prevent needless anxiety on the part of the already burdened student.

Although extracurricular remunerative work may be necessary, it should be weighed carefully in terms of energy expenditure, time consumption. and relatedness to the medical career as well as in terms of adequate financial return. There is an appropriate and an inappropriate time for such activity. The freshman year for students who have any academic difficulty, is a most unfortunate period for such use of precious time, and outside work at this time may well make the difference between failure and success, or cast the die for a good or fair or poor student, a handicap sometimes difficult to overcome.

At other times during the four years, from sophomore to senior, good advice and guidance may make the difference between successful and rewarding employment and burdensome, tiring, and frustrating labor. Loans on considerate and generous terms should be available to these students with the thought that such loans are often good economy for the student in terms of the over-all picture. They may mean a better education, a better prepared physician, and a happier one.

Delay in entering medical school or a year's interruption of medical education to earn money is not desirable. It is more economical, both to the individual and to society, to continue with the medical education as promptly as possible and thus prevent loss of continuity in related learning. Physicians become available to society much sooner, and

the student's income is relatively greater after he receives his M.D. degree.

Various sources of income by loans, grants-in-aid, scholarships, etc. should be made known to all medical students. The recent publication by the Association of American Medical Colleges (June, 1961), "Sources of Information on Financial Aid to Medical Students," is a step in this direction, as is its antecedent, a brochure entitled "Medical Scholarship or Loan Funds," distributed by the American Medical Association. The AMWA Fund is listed as one of the national sources. It should be recognized that under certain circumstances a student may prefer obtaining assistance from sources outside his medical school. One of our loanees makes this very point. Government aid to medical students is allocated directly to medical schools, in particular to those who add a small percentage matching sum. This type of allocation to schools sometimes creates difficulties for the freshman, who cannot complete his budgetary plans until after acceptance to a medical school participating in the program. He may delay entering a medical school if money is a major consideration because of lack of assurance of forthcoming funds.

In the administering of student loan funds it is essential that dignity, kindness, and consideration as well as an appropriate business-like attitude prevail at all times, without generating a sense of obligation and with "no strings attached." The AMWA has apparently succeeded in these points over the years, as we gratefully note from the various quotations cited herein. Assisting young physicians prepare for their life work is a privilege with many rewards. Return on financial investment is the least of these. An impressive portion of a letter from a young physician who enclosed a check for her full indebtedness five years ahead of schedule illustrates this point.

> I am very happy to have saved enough money from Internship and Residency pay to be able to pay my loan in full. I hope this check will reach you in time to help some deserving medical woman student this coming school year.
>
> To show my appreciation for the loan, I plan to donate a sum of money to the loan fund each year. Please advise me how I may go about doing this.

From an addendum to the questionnaire, a loanee comments:

> Our cup is at last running over. My husband receives his M.D. this June from _____ State University. We have two lovely cherubs. Professionally I am with the _____.
>
> Let me add we are extremely grateful for the AMWA loan. The need then was desperate and the going has been a bit rugged, supporting ourselves entirely for two M.D.s.

Perhaps more young persons would enter the long, strenuous, and expensive (even though rewarding) field of medicine if assurance of adequate financing could be made from the start. Many proud young persons resent having to encumber their parents and family for these added years when less expensive and often as interesting, or nearly as interesting, careers in science are open requiring much less money, time, and effort. The presently popular field of physics, various aspects of engineering, and innumerable areas of scientific research quickly come to mind. We of the AMWA can do our part in helping women enter medical careers. More than the men, they are reluctant to ask for further parental support in their continued education.

## SUMMARY AND CONCLUSIONS

The need for student aid continues despite government and private contributions. In the October, 1960, issue of the *Journal of the Association of American Medical Colleges*[1] appears the statement that 40 per cent of all U.S. medical schools could not at that time fulfill their student's needs for educational loans. An earlier issue (March, 1960) indicated that one third of those graduating in 1959 had loan liabilities directly related to their total assets. The total indebtedness of this group was nearly 10 million dollars, averaging nearly $4,300 per student.

There are approximately 2,000 women students in medical colleges of the United States at the present time.[2] These represent about six per cent of the entire student body. During the past four years applications for admission to medical schools by women have increased by nine per cent while those by men have decreased in exactly the same proportion. The number of entering women students has increased by 13 per cent during the four years, those of men by less than 2 per cent.

The *Journal of Medical Education* contains the statement that "wider and wider range of vocational opportunities in professional, technical, and scientific fields have opened up over the years, and will open up in the future, to men who possess a baccalaureate de-

gree. As a consequence, decreasing proportions will have an interest in medicine. . . . There is general concern about the dwindling quality and quantity of medical school applicants." [3] This dwindle in quality and quantity may well be made up through an accelerated increase in qualified women students.

Women are often in a difficult position with regard to obtaining loan and scholarship aid as has been indicated in the foregoing discussions. The AMWA is the ideal organization to help these women with financial aid, and, in thus coming to know these young physicians, to study ways and means of improving the circumstances of their medical education.

We of the AMWA need to increase the effectiveness of the Loan Fund by enlarging the amount so that no deserving person is turned away. At present great economy and selectivity must be employed to preserve the funds and to keep ours a revolving fund. There is not enough allocated from released funds to cover the requests of freshmen applying for this fall (already 10). Individual members and branches may work toward the goal of securing funds for all medical students applying who have ability and financial need, regardless of seniority.

The first step in this direction has already been taken. At the AMWA meeting in New York City, June, 1961, we of the Executive Board started a birthday fund to be added to our student loan fund. Each of us hopes to contribute $10 yearly on her birthday. We now have a nucleus of what can become a large fund if each of us will contribute.

At the close of a questionnaire, a loanee added a $100 gift for the Loan Fund. These gifts are growing and growing, and new sources of growth are developing. The cooperative efforts of all of us will make the final growth truly effective.

*—Rosa Lee Nemir, M.D.*
First Vice President and
Chairman of Student Loans

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# Anita M. Mühl, M.D.*

In any survey of the AMWA Student Loans, Fellowship and Grants Program, there comes to our mind the name of a very substantial contribution from a long time AMWA member and scholar. Traveler, musician, psychiatrist of international reputation, teacher, and researcher, the life of Anita Mühl, M.D. is a stimulation to every woman looking forward to a career in medicine. To encourage the woman medical student and ease her path, Dr. Mühl willed the sum of $20,000 to the Association to be incorporated into the Scholarship Loan Fund for women in medicine.

Anita May Mühl was born in Indianapolis, Ind., in 1886. Here she had her early schooling and the beginning of her music education at the age of 7. Except for three years of her high school career, also in Indianapolis, she spent the next 11 years studying music and languages in Europe and traveling extensively throughout the continent. In 1914, she made the decision to study medicine and entered Butler College in Indianapolis, winning a scholarship to Indiana University School of Medicine. By 1920 she had obtained both her B.A. and M.D. degrees.

*Dr. Berenice Stone, a gynecologist of San Diego, Calif., was a long standing friend of Dr. Mühl and provided the material for this article.

Soon after her graduation, she received an appointment to the U. S. Medical Service, Department of the Interior, Washington, D.C., and was assigned to the Psychiatric Division (St. Elizabeth's Hospital). In 1922, she obtained leave from her government service to do research at Pottengers Sanitarium in California and in 1923, through her valuable study and research, she was awarded the degree of Doctor of Philosophy in Psychopathology at George Washington University.

In 1929 she spent six months in Europe, taking postgraduate work in criminology at the University of Vienna. She also particularly enjoyed the summer in Iceland where she organized their first Mental Hygiene Conference. On her return to Washington, D.C., she represented Iceland at the International Congress of Mental Hygiene. In 1931, the beauties of Iceland and the friends she had made there drew her back and, while there, she addressed the Icelandic Medical Association.

Her interest in medical women at home and abroad was stimulated by her attendance at the Medical Women's International Association meeting in Edinburgh, Scotland, where she served as one of the AMWA delegates. The following year, she addressed the annual meeting of AMWA in San Francisco.

In 1938 Dr. Mühl was appointed lecturer in Psychiatry and Criminology at the University of Melbourne, Australia, and the following year returned as official United States delegate to the Australian and New Zealand Association for the Advancement of Science at Canberra, Australia. Again she shared her knowledge and skill with a foreign country and for three years more served as Lecturer in Psychiatry and Criminology at the University of Melbourne, took charge of the Truancy Clinic for the State Department of Education in Victoria, was in charge of Behaviour Clinic, Board of Social Studies, supervised the research program for Psychiatric Studies, Orthopedic Hospital, Frankston, and in Melbourne did intensive work with one of the great refugee experts in handwriting analysis. She returned to the U. S. in 1942 and devoted the rest of her life to continuous research in handwriting analysis of criminals.

In 1947, she again demonstrated her interest in international affairs, as well as in women in medicine, by attending the First Pan American Medical Women's Alliance in Mexico City, where she was appointed to the House of Delegates. During the second biennial meeting of the alliance in Los Angeles, she served as one of the hostess group. Her tact and understanding averted a crisis that might well have dissolved the PAMWA in its infancy. The cultural, language, and religious differences were difficult to surmount. Dr. Mühl explained to all dissenting groups the values and purposes of an inter-American medical women's organization and the shoals it was approaching. She stressed that the Alliance had been organized for an interchange of medical scientific knowledge and for the development of friendships and better understanding between women medical colleagues of all countries of the Americas. She proposed a motion that no matters dealing with religion or politics should enter into any session of the PAMWA. This motion passed unanimously and has been scrupulously observed in the 13 years of growth from 3 to 13 countries with member branches.

It is interesting to note that in addition to her membership in the American Psychiatric Association (Fellow), the American Association for the Advancement of Science, the American College of Physicians (Fellow), and AMWA, MWIA, and PAMWA, she was also an honorary member of the International Mark Twain Society.

Her death at her home in La Jolla, Calif., on Dec. 14, 1952, at the early age of 66, was a great loss to the fields of clinical psychiatry, psychiatric research, and to women in medicine everywhere.

# Medical Briefs

## PHENYLKETONURIA CONTROLLED IN MICHIGAN

Four infants, found to have phenylketonuria, were assured normal intelligence and healthy growth. They were helped by the Michigan Program for Mentally Retarded Children, located at the University of Michigan Medical Center, and its intensive state-wide campaign to predict and prevent mental disease.

According to Dr. Richard J. Allen, a pediatric neurologist at the University of Michigan and director of the Program, the groundwork for saving the four children was laid less than three years ago when the Program initiated a continuing survey of Michigan's mentally ill. The study revealed about 100 cases of clearly-defined phenylketonuria, among the number of other mental disorders.

Since phenylketonuria is an inherited disorder, physicians, psychologists, and social workers from across the state interviewed and examined all family members of the victims uncovered by the survey. Special interest focused on newly pregnant mothers within the families. On delivery, at various hospitals throughout the state, the babies were tested with special blood tests.

The four infants found to have phenylketonuria were diagnosed within days after birth and were immediately placed on a corrective diet.

The Central Registry of all known victims of phenylketonuria is located at the University of Michigan Medical Center. The Program is aided by the Children's Bureau of the Department of Health, Education, and Welfare.

Dr. Allen said it is believed to be one of the first state-wide efforts of its kind to combat this type of mental illness.

## OXYGEN AIDS CANCER TREATMENT

Dr. Norah duV. Tapley is one of a team of three physicians who are doing cancer therapy research under a grant from the National Institute of Health. She is part of a new program at Columbia's Presbyterian Hospital, New York, involving the use of a cylindrical steel tank, eight feet long, in which a patient can receive doses of 1,000 r. The 22-million-volt beam of the betatron can be aimed by precision movements on the localized lesions of the patient while a pressure of four atmospheres of oxygen is maintained within the tank.

This treatment is a more drastic step used only when ordinary roentgen ray treatment fails. A total of 3,000-4,000 r. is given in weekly doses to a patient adequately prepared with sodium phenobarbital and prophylactic eardrum incisions prior to subjection to the high oxygen pressure. Respiratory action, heart beat, and skin and tank temperature are checked through electrodes and other sensitive mechanisms. During the 30 minutes the betatron is in operation, no one is allowed in the room.

Tank therapy had its beginning in England where the first tank was built by Dr. Ian Churchill-Davidson at St. Thomas' Hospital, London. Three and a half years after he started, out of his 80 patients, 28 were cured when treated in the early stages of cancer. These results created incentive for the Columbia group who were joined in 1957 by the anesthesiologist from the London group, Dr. Cyril Sanger. The Columbia team continued the work, which was based on an earlier study by Dr. L. H. Gray, on the greater responsiveness of highly oxygenated mouse tumors to radiation. Also on the Columbia team with Drs. Tapley and Sanger are Dr. William Seaman and Dr. Harold W. Jacox.

## HEART MONITOR INVENTED

A double-purpose pacemaker, invented by by Morris Tischler, detects the wavering of a heart and directs a message to it which revives it and sets it going at a prescribed pace. Electrodes fastened to the patient's chest pick up the distress signals of the heart and transmit them to a receiver carried by the physician, who may be 2½ miles away. Mercury batteries furnish power for the bifunctional cardiac aide.

# President's Message

I should like to start the ball rolling by telling you about the "AMWA Today."* Other people will tell about the "AMWA Tomorrow," and of some of the hopes and dreams we have for the future.

Many persons have viewed our new Constitution and Bylaws with mixed feelings. Frankly, my own immediate reaction was, "Oh, dear, this means eighteen Presidential messages instead of twelve." But seriously speaking, because the new Constitution represents a breaking away from tradition, it is understandable that some have viewed the changes with alarm. I hope, however, that the majority of our membership regards the changed Constitution as a meaningful and important step in the direction of a stronger organization.

The Constitution and Bylaws under which we had been functioning were perfectly adequate for our organization in its developmental stages. The need for a change became increasingly apparent in recent years as problems arose which could not be resolved by our old Constitution. And so Dr. Kahler and her committee worked hard and long on revisions to bring our Constitution and Bylaws in keeping with the times. The new version was passed at our last annual meeting.

I should like to discuss these changes because they directly affect all of us both as members of the national association and as members of the local branches.

First of all, I should like to mention our change from the July through June year to the calendar year for AMWA activities and finances. In the past, elected officials were inaugurated into office at our annual meeting, which was always held in June in conjunction with the AMA meeting. However, this practice was confusing in view of the fact that our membership dues are collected for the calendar year.

Our new Constitution does not specify when our annual meeting should be held. As you may recall, we conducted a poll in which each member was asked for her opinion on the course of action to be taken with regard to the annual meetings. Should we stay with the AMA? Should we go out on our own? Should we have our meeting in conjunction with the AMA clinical session, or should it be in conjunction with the annual meeting of the AMA?

The end result of the poll was just as we had expected—a complete split. Some were in favor of remaining with AMA. An almost equal number voted for breaking away. Others recommended that we stay with the AMA annual meeting; an equal number called for our staying with the AMA clinical session. Like Solomon, we were faced with the problem of what would happen if we made any one decision. So we didn't—we made four decisions. ☛

*Dr. Ryder's remarks at the Report Session of AMWA Interim Meeting, June 24, 1961.

This year, our annual meeting will be held independently, and will in no way be related to the AMA meeting. This year's meeting will be held in Cleveland in late November and early December. Next year, our annual meeting will be held in Los Angeles in conjunction with the AMA clinical session. And next year, we will again have an Executive Board meeting which will be held in conjunction with the AMA annual meeting. In this way, we will have the variety of approaches recommended by the membership. The attendance at the various meetings will be a significant factor to guide us in our future planning.

Another change is the fact that now all matters pertaining to the organization—dues, fiscal matters, election of officers, etc.—are based on the calendar year.

We are well aware of complications that may arise when the affairs of the national office are based on a calendar year, and the branches maintain the July through June year. This brings to mind the situation that occurred at the recent White House Conference on Aging. The delegates were chosen two years in advance for the Conference by a governor in one particular state. However, the governor was not re-elected, and the newly elected governor selected another group of delegates for this purpose. By the time the Conference was held, a third governor of the state had selected a third group of delegates. The people who were trying to arrange the administrative details of the WHCA were faced with three sets of delegates, each insisting they had the authority to represent their state. Of course, I do not think that such an extreme situation will occur in our organization, but the fact remains that if the branches retain the July through June year, the officers elected one year might not be the ones who would be in office when we hold our annual meeting.

To simplify matters, we are asking the branches to bring their year in conjunction with ours, if this can be done without too much trouble. In this way, the branches would have the same time-period as the national office for election of officers and other vital matters that are handled on a yearly basis. This is not obligatory; it is just a suggestion from central office that can make our lives a little easier and may simplify matters at the branch level as well.

There is an added advantage to having our annual meeting independently. When our meetings were held in conjunction with AMA, we were of necessity limited to the same four cities in which AMA meetings were held. Now we have complete leeway in determining the location of our annual meeting, and we hope that in the varied localities in which future meetings will be held, development of branch activities will be stimulated. We are now asking the branches to take on hostess roles and to be responsible for arrangements.

In addition, at our regular Board meeting, we will invite the local branch to participate with us for one day in an open session covering areas of scientific and general interest.

Another change in the Constitution is aimed at strengthening our organization through the development of a representative form of government. We must now have delegates chosen from each branch, with the number of delegates dependent on the size of the branch. In addition, in states where there are at least eight members-at-large, a State Director can be chosen to represent this group in the House of Delegates. These two groups, representing the membership, will be responsible for governing our organization.

The success of the House of Delegates rests with you, the branch members. We hope that the branches will meet prior to the annual meeting to discuss resolutions. Resolutions can be submitted to the national office from any branch or active member, and are then returned to the branches, to provide an opportunity for final review by branch members. It is vitally important for the branches to

give serious consideration to all resolutions, submitted by the branch or branch members to ascertain the attitude of the group, and to instruct the delegates accordingly. Only in this way will delegates be able to truly represent and reflect the desires of the branches.

The time and effort involved will be more than worthwhile. Certainly delegates should not come to the annual meeting with the attitude or excuse: "Well, we happened to be going to Cleveland and so we can take this in."

In addition to the one day of business, plans for the annual meeting include a scientific assembly to which all are welcome—delegates, members, friends, and guests. Even if you do not attend as a formal delegate, I urge you to try to come to the meeting if it is at all possible, as there will be many activities in which your participation is urgently required.

To clarify another matter of change, I would like to talk about the new approach in the organization and structure of the AMWA itself.

First, review of the various committee functions highlighted the need for developing channels of communication among the chairmen of the various committees; to meet this need, two over-all committees were established. The president-elect with her selected chairmen of the various committees now comprise a Planning Committee, which meets at the Board meeting to make plans for the following year. At the same time, the President has a Coordinating Committee composed of those who are currently serving as committee chairmen. The Coordinating Committee meets immediately after the President assumes office to plan the current activities. This means that those who are members of the Planning Committee one year—that is, the president-elect and the chairmen-to-be of committees—automatically become members of the Coordinating Committee immediately after the annual meeting; at the same time, a new Planning Committee is formed with the newly elected President-elect as chairman.

Because we are in the midst of the confusing change-over period, we have not separated these two committees at the present time. We have had a single meeting for both the Planning and Coordinating Committees, and in many instances many of the individuals involved wore two hats, so to speak. In the future, however, we will definitely have two separate groups meeting and planning with the President-Elect and the President.

As a means of dividing the total responsibility and encouraging closer working relationships in smaller groups, four AMWA sections were created: Growth and Development; Research, Education and Training; Organization and Management; and Liaison with Outside Organizations.

The Growth and Development Section includes the Membership Committee, Publicity and Public Relations Committee, Publications Committee, and the Lectureship Committee. Although all committees and all individual members are concerned with the growth and development of our organization, these four committees have specific responsibilities in this regard.

The Research, Education and Training Section includes the Committee on Student Loans, Fellowships and Grants, the Medical Education and Practice Committee, the Public Health Committee, and the Chairman of Junior Membership. This group is concerned with all activities relating to the medical education and research programs of the Association, including special projects, recruitment of women into medicine, and provision of assistance, where needed, for women in medicine as they go through their medical course, internships, and residencies.

The Organization and Management Section is responsible for the business and administrative aspects of our organization, and contains the Constitution and By-

laws Committee, the Legislative Committee, the Nominating and Elections Committee, the Archives, Resolutions, and Finance committees.

The fourth section is responsible for liaison with outside organizations, and includes our Liaison Committee with the American Women's Hospitals and with the Woman's Medical College of Pennsylvania, the Library Committee, the Special Library Committee, the NGO (Non-Governmental Organizations) Observers to United Nations, and our International Committee.

Finally, just as big industry has vice-presidents in charge of various phases of business activities, so our organization will have four councilors elected at the annual meeting. Each councilor will be responsible for one of the Sections, and thus will serve as a communications channel between the committees of her section and the Executive Board.

We know that not all branches have sufficient membership to warrant having the same kinds of committees at the local level as the organization has at the national level. However, no matter how large or how small a branch may be, we feel that each local organization can designate four persons with whom the councilor at the national level could relate. In other words, the councilor for the Growth and Development Section might very well relate to a local member such as the Membership Committee Chairman. Another person in the local branch could be the one to whom the councilor of the Research, Education and Training Section could speak or write. The President, or her designee, probably would be the logical person to represent the Organization and Management Section, and that is probably also true of the Section responsible for liaison with Outside Groups. Each branch will soon receive a request to designate individuals within the branch who can be approached in terms of the four Sections that I have mentioned.

What can you, as a branch member, do? You can acquaint yourself with the new organization, concentrate on finding ways to improve co-ordination of activities at the local and national levels, and work to close or narrow any existing gaps. An organization is only as strong as its foundation, and so the strength of AMWA depends on the interest and participation of the supporting branches.

Claire F. Ryder M.D. M.P.H.

# Candidates for Offices of AMWA

The Following Physicians Have Been Nominated for the Year 1962.

## PRESIDENT-ELECT

DR. RUTH HARTGRAVES, an obstetrican and gynecologist, has her offices at the Texas Medical Center, Houston. She holds B.A. and M.D. degrees from the University of Texas. She is Assistant Professor of Obstetrics and Gynecology at Baylor University College of Medicine, and is the alumna sponsor of the women medical students at the College.

Dr. Hartgraves holds membership in the AMA, AMWA, Texas Medical Association, Harris County Medical Association, Texas Association of Obstetricans and Gynecologists, and the Post Graduate Assembly of South Texas.

She has been active for many years in the AMWA, having served as Corresponding Secretary for the term 1955-1956, First Vice-President for the term 1957-1958, and Past President of the Branch Forty-Two, Houston, Texas.

## VICE-PRESIDENT

DR. BERNICE C. SACHS of Seattle is actively engaged in the practice of psychosomatic medicine at the Group Health Clinic.

Her high school, college, and medical educations were all characterized by high levels of citizenship and scholarship. She received her B.A. degree in 1939 "with distinction" from the University of Michigan, Ann Arbor. She remained at the University to pursue her medical training on the combined curriculum and, in 1942, was awarded an M.D. degree, again "with distinction." For the next seven years she was occupied with internship and postgraduate training at Michael Reese Hospital and the Institute for Psychomatic and Psychiatric Research and Training, Chicago. Since 1949, her home has been Seattle.

She was President of Branch Thirty-Seven, Seattle, Washington, 1959-1960, and at the same time was Recording Secretary of the national organization. She was Second Vice-President of AMWA for the term 1960-1961.

She is a member of the American Psychosomatic Society, Washington Academy of Clinical Hypnosis, and local medical societies.

She is also a member of several honorary scholastic societies, among which are Phi Beta Kappa and Alpha Omega Alpha.

"My interests are sailing, water skiing, fishing, tennis, golf, music, dancing, and living in 'God's Country' with my husband, Dr. Allan Sachs (surgeon) and two children, Lee William, age 16, and Robin Beth, age 13."

## TREASURER

DR. ELIZABETH R. BRACKETT, is a general practitioner in Nutley, N.J., where she has been practicing for 30 years.

Her first contact with the medical profession was via the nursing profession. After graduating from the Presbyterian Hospital in New York City she held executive and teaching positions in the field of Public Health nursing and served as an Army Nurse in the European theater during World War 1.

She received her M.D. degree in 1929 from the College of Physicians and Surgeons, New York City. Internship at Newark City Hospital and residencies in pediatrics at the Children's Hospital of Philadelphia and Babies' Hospital in Newark preceded the establishment of her practice in Nutley.

Over the years she has held the following appointments and offices: Attending Physican at Presbyterian Hospital in Newark, Associate

Attending Physican at Babies' Hospital, St. Barnabas Hospital, and East Orange General Hospital; President of the New Jersey State Women's Medical Association; Member of the Council of the Essex County Medical Society; Chairman of the Committee on Nursing and Nursing Education of the Essex County Medical Society; President and charter member of the Nutley Public Health Nursing Association; and Chairman and member of the Finance Committee of AMWA.

For recreation Dr. Brackett enjoys traveling, gardening, and working about her home.

## SECRETARY

DR. YMKJE M. VAN ERP is in practice in a suburb of Cleveland. She was born and educated in the Netherlands, receiving her medical degree from Leiden University in 1937. She took her training in pediatrics at Children's Hospital in Rotterdam under Dr. Anna Van Westrienen and she practiced pediatrics in Haarlem from 1941-1952. This training was interrupted in 1946, when she served with the Dutch Red Cross in Indonesia, and again from 1949 to 1950 when she studied celiac disease with Dr. Dorothy Anderson at Columbia Medical Center, New York City, under a grant sponsored by the American Association of University Women.

Dr. Van Erp received her Ph.D. degree from Leiden University in 1951; her thesis was "Influences on Fat Tolerance." Her interest in fat tolerance brought her to Western Reserve University, Babies' and Children's Hospital under a fellowship in 1952. At this time she married John Van Erp, an architectural engineer and in 1954 they moved to a Cleveland suburb. Their son, Peter, was born in 1956.

Dr. Van Erp just completed her term of office as President of Branch Fifteen, Cleveland, Ohio.

PRESIDENT: DR. EDITH PETRIE BROWN, President-Elect, will assume the office of President at the conclusion of the 1961 Annual Meeting.

# Opportunities for Women in Medicine

## AWARDS

*Reporting.* The Revere Publishing Company, medical journal and book publishers, has announced the Revere annual $1,000 award for excellence in medical reporting of clinical studies. The award is made to the senior author of the original paper published in *The Journal of New Drugs* for the coming year judged to be the best on the basis of originality and interest, design of study, conduct of trials, validity of conclusions, clarity of presentation, and general importance to the medical professions. Papers should be submitted by June 30, 1962, to Editor, *The Journal of the New Drugs*, 660 Madison Ave., New York City 21. Additional information concerning the award and a copy of the journal are available to physicans on request.

*Urology.* The American Urological Association offers an annual award of $1,000 (first prize of $500, second prize $300, and third prize $200) for essays on the result of some clinical or laboratory research in urology. Competition is limited to urologists who have been graduated not more than 10 years, and to hospital interns and residents doing clinical or laboratory research work in urology. Animal research is not necessary. The first prize essay will appear on the program of the forthcoming meeting of the American Urological Association, to be held at tht Bellevue-Stratford Hotel, Philadelphia, May 14-17, 1962. For full details write to William P. Didusch, Executive Secretary, 1120 North Charles St., Baltimore. Essays must be on his desk before Nov. 15.

## COURSES

*Electrocardiography.* The American College of Physicians offers Postgraduate Course no. 4, "Advances in Electrocardiography," Dec. 4-8, at the New York University Medical Center, New York City. The object of the course is to present the newest bioelectric and electrochemical data of a fundamental nature. Registration blanks and information can be obtained from Edward C. Rosenow, Jr., M.D., Executive Director, ACP, 4200 Pine St., Philadelphia 4.

*Obstetrics-Gynecology.* The Department of Obstetrics and Gynecology of Emory University School of Medicine offers a three day postgraduate course, "Medical Complications of Pregnancy," Nov. 9-11. The course will be held in the Grady Memorial Hospital Auditorium, Atlanta, Ga. For more information write to the University, 69 Butler St. N.E., Atlanta, Ga.

*Pre and Postoperative Care.* The American College of Physicans presents Postgraduate Course no. 3, "The Internist's Role in the Pre and Postoperative Care of the Surgical Patient," Nov. 6-11, at the Mayo Clinic, Rochester, Minn. Topics to be discussed will be basic scientific background and practical methods of handling pre and postoperative problems. For information write to Edward C. Rosenow, Jr., M.D., Executive Director, ACP, 4200 Pine St., Philadelphia. Tuition fees for members is $60, for nonmembers, $80.

*Rehabilitation.* The University of Wisconsin offers a postgraduate course in "Rehabilitation of Patients with Injuries of the Spinal Cord." Nov. 16-18. For further information write Dr. A. Siebens, Chairman, Wisconsin Center Building, Madison, Wis.

## GRANTS

*Radiology.* Programs for research grants in radiologic health are now available to individuals, hospitals, universities, laboratories, and other public or private institutions. Suggested studies are: assessment of radiation exposure effects; organization of general control programs; scientific evaluation of long term effects such as aging, congenital malformations and genetic effects; purely physicial studies; and studies aimed toward control devices and attempts to assess the relationship between health hazards created and possible benefits derived by radiation usage. For further information and applications contact Dr. Paul F. Hahn, Chief, Office of Extramural Grants, Division of Radiological Health, U.S. Public Health Service, Washington 25, D.C.

# News of Women in Medicine

Dr. Jane B. D. Battaglia of Baltimore is a new Junior member of The American Society of Anesthesiology.

Drs. Carol Bell, Linda Lynn, and Barbara Manildi were the only three women of 41 June graduates from the University of California School of Medicine, San Francisco, this year. Dr. Bell is an intern at Queen's Hospital, Honolulu, Hawaii, Dr. Lynn at Sacred Heart General Hospital, Eugene, Ore., and Dr. Manildi at Mt. Sinai Hospital, New York City.

The 1961 Scientific Directory and Annual Bibliography of 1960 published by the National Institutes of Health listed 17 women physicians as researchers. Dr. Jane G. Elchlepp of NIH is doing field studies in the Diagnostic Research Branch of the National Cancer Institute. Drs. Miriam D. Manning of Boston, and Mary Walton of Savannah, Ga., are in the Epidemiology Branch of the NCI. Drs. Lucia J. Dunham, Thelma B. Dunn, and Katherine C. Snell of Bethesda, Md., were on the staff of the Laboratory of Pathology and Drs. Elizabeth W. Chu of the NIH and Katherine M. Herrold of Bethesda, were in the Pathologic Anatomy Branch of the NCI.

Also at the NIH are: Dr. Martha Vaughan of Bethesda, Md., doing Intramural Research for the National Heart Institute in the Laboratory of Cellular Physiology and Metabolism, and Dr. Nina Braunwald of New York City in the Surgery Branch. Dr. Celia W. Tabor of Bethesda, Md., is a researcher in the Laboratory of Pharmacology and Toxicology for the National Institute of Arthritis and Metabolic Diseases. Dr. Lucy D. Ozarin, Washington, D.C., is in the Community Services Branch of the Extramural Program conducted by the National Institute of Mental Health. Dr. Maria K. Szwarchart in the Laboratory of Psychology is also doing research for the NIMH. Dr. Rosaline Goldman is on the staff of the Perinatal Research Branch of the National Institute of Neurological Diseases and Blindness. Dr. Dorothy M. Brodie of Washington, D.C., Dr. Betty E. Hathaway of Alderson, W. Va., and Dr. Jean R. L. Herdt of Seattle, make up the staff of the Diagnostic X-Ray Department in the Clinical Center at NIH.

A picture of Dr. Eva Klein and her husband, Prof. Georg Klein, appeared in the March 27 issue of the *Medical Tribune* with the announcement that they would begin a series of lectures on experimental cancer research at Stanford University, California. Formerly they were in the Department of Tumor Biology at Karolinska Institute in Sweden.

In the April 22, issue of *The Saturday Evening Post*, recognition was given to the late Dr. Marjorie Warren of London, England, for her contribution in the field of treatment and care of geriatric patients. Her ideas were responsible for a program initiated by Dr. Cosin at the Cowley Road Hospital in Middlesex Hospital, England. Patients were grouped according to their ability to do things for themselves, the waiting list was abolished, and, on a temporary basis, care was established until a family could again take over the responsibility of the aged member of the family. These are only some of the innovations in Cowley Road Hospital which can be traced to the example set by the late Dr. Warren who tried out her theories at The Other Side, a Hospital for the aged in England.

Dr. Linda Plazk Woodbury of Hinsdale, Ill., is the third member of her family to receive an M.D. degree from The University of Chicago in the past four years. Her brother, Louis Plazk, graduated from the School of Medicine in 1958, followed by her sister, Janice, in 1960. A husband and wife team, Drs. David and Nancy Donnell Barber were other recent graduates of University of Chicago. They will intern at the Cleveland Clinic Hospital, Cleveland.

# Book Notices

Editor's Note: These reviews represent the individual opinions of the reviewers and not necessarily those of the members of the Editorial Board of THE JOURNAL.

PSYCHOANALYSIS, SCIENTIFIC METHOD AND PHILOSOPHY. Edited by Sidney Hook, Professor of Philosophy, New York University. The first symposium of the New York University Institute of Philosophy. Pp. 370. Price $5.00. New York University Press, New York, 1959.

The contents of this book comprise the proceedings of the second annual New York University Institute of Philosophy held in New York in 1958. A group of distinguished philosophers of science met with an equally distinguished group of psychoanalysts to exchange ideas concerning psychoanalysis as a scientific theory. Their contributions are most interesting in content as well as revealing in the matter of communication.

Heinz Hartman reviews a number of Freudian concepts including the idea that philosophers may be interested in the interpretation of their own thoughts in terms of psychoanalysis. The fact that theory is determined by psychological process does not necessarily invalidate its scientific truth. Lawrence Kubie reaffirms the position that psychoanalysis is a scientific discipline although not a science "qua physics."

Ernest Nagel believes that neither anthropological observations nor experimental findings support the empirical foundations of psychoanalysis and that its tests lack control and that it is not predictive.

Moris Lazerowitz postulates that metaphysics is but the conscious expression of prohibited unconscious fantasies. Most of the philosophers respond with frank and provocative denial. Williams explains that metaphysics is a cognitive response to the totality of things. Raphael Demos agrees with Ambrose that whereas in science solutions are reached and agreement achieved, metaphysical inquiry fails on both counts.

Among the statements of Freud to which the philosophers took most exception was the assertion that the intellect is a feeble and dependent thing, acting as the individual's underlying psychic dynamics determine.

This brillant symposium is highly recommended to all intelligent layman as well as psychologists, psychonalysts, and philosophers.

*—Judith Ablem, M.D.*

EPILEPSY AND RELATED DISORDERS, VOL. I and VOL. II. By William Gordon Lennox, A.B., A.M., M.D., Sc. D., (Hon.) Associate Professor of Neurology, Emeritus of Harvard University School of Medicine, Formerly Chief of Seizure Division, Children's Medical Center, Boston, National Consultant in Epilepsy to the Veterans Administration, President, International League Against Epilepsy, and Editor of Epilepsia; with the collaboration of Margaret A. Lennox, A.B., M.D., Member, Institute of Neurophysiology, Copenhagen. Pp. 1,168 with illustrations. Price $13.50 for both volumes. Little, Brown and Co., Boston, 1960.

Doctor Lennox spent most of his mature years in a crusade against epilepsy, and these two volumes are his legacy written in collaboration with one of his daughters, who shared some of the medical endeavors of his later years. The work is peculiarly personal both in style and content.

An excellent review of the history of epilepsy is presented and historical references recur in the text. The clinical aspects of seizure states are superbly documented and represent a unique collection of case descriptions. The authors are less successful in dealing with more basic aspects of neural behavior and genetics, being hampered by the concept that epilepsy is a disease per se. Involved early with electroencephalography, Lennox fostered its development as a diagnostic tool and the importance in this of his co-workers, particularly the Gibbses, is made apparent.

"Epilepsy" is the testament of the man whose battle for the seizure patient ended only with his last illness. As such it merits respect and attention in spite of the fact that certain of its concepts may not find wide acceptance.

*—Tiffany Lawyer, Jr., M.D.*

METHODOLOGY OF THE STUDY OF AGEING. Editors for the Ciba Foundation G. E. W. Wolstenholme and Cecilia M. O'Connor. Pp. 202. Price $6.50. Little, Brown and Company, Boston.

The increasing proportion of older people in the poulation has made it important to study the processes going on in aging. This volume, which is the third reporting the "Colloquia on Ageing" held under the sponsorship of the Ciba Foundation, presents methods used in studying senescence.

The book contains 12 essays and a general discussion by authors from Europe, North America, and South Africa, working in biological centers varying from anatomical laboratories to clinics of a city hospital and ranging in subject from morpho-

logical changes in unicellular animals to those in measurements of emotion and intelligence in aging humans. The general discussions which follow the essays extend the data and bring out many points not touched upon in the main presentation.

This book will be of great interest to any worker in plant, animal, or human biology not only because of the subject matter it presents but because of the widely different methods of research it outlines.

*—Camille Mermod, M.D.*

MANAGEMENT OF HYPERTENSIVE DISEASES. By Joseph C. Edwards, A.B., M.D., F.A.C.P., F.A.C.C., Assistant Professor Clinical Medicine, Cardiovascular Consultant to Division of Gerontology, and Consultant in the Hypertension and the Cardiac Clinics, Washington University School of Medicine and Barnes Hospital, St. Louis, Mo.; Cardiologist and Director of Hypertension Clinic, St. Luke's Hospital, St. Louis, Mo; Active Staff Physican, Deaconess Hospital, and member of Consultant Staff, Missouri Baptist Hospital and St. Joseph Hospital, St. Louis, Mo.; Consultant, Council on Drugs, American Medical Association; Medical Consultant, Fifth Army of the United States, Office of the Surgeon, Chicago, Ill. Pp. 439 with illustrations. Price $15.00. The C.V. Mosby Co., St. Louis, 1960.

In this book, Dr. Edwards has succeeded (as intended) in supplying the busy practitioner with a practical guide for the management of the patient with hypertensive disease. It is not a mere pocket manual outline of treatment, however. It is a meaty, well-documented, erudite discussion of all phases of the complex clinical problem of hypertension, concise and well-organized enough to be used for daily ready-reference.

The author is a therapeutic enthusiast with sufficient scientific reservation, however, to satisfy even the most rabid nihilists in the field. He offers an abundance of documentary references and illustrative case material from his own experience to support his views.

The book is well-bound and clearly printed on good quality paper. It is to be expected that this book and subsequent editions will become standard references of value to all who manage patients with hypertensive disease.

*—Arthur Felix, M.D.*

INFORMATION, PLEASE! FOR WOMEN ONLY: incorporating The Dunhill Chart by Alfred Dreyfus II. Pp. 556. with table. Price. $7.50. Vantage Press, New York, 1961.

This book is highly recommended! The author shows an uncommon talent for presenting with clarity and tact information indispensable to every woman.

*—Gladys Grady, M.D.*

THE GENTLE LEGIONS. By Richard Carter. Pp. 335. Price. $4.50. Doubleday and Company, Inc., New York, 1961.

The purpose of this book is to provide the missing knowledge so that "an informed public can decide for itself whether the public has been financing health research and related undertakings in a sensible way and what needs to be done in the future." Since many women physicians are involved in the work of voluntary health agencies, this very readable book should be of interest, disregarding some of the facts used.

In quick, sharp, well written chapters the author attempts to entertain the reader while presenting a very short history of the voluntary health organizations. He discusses superficially but with loving care various agencies such as the Red Cross, the National Tuberculosis Association, the National Foundation, the American Cancer Society, the American Heart Association and various smaller agencies.

All of these chapters lead up to the main issue in the volume. This issue simply stated is that voluntary health agencies should be independent fund raisers and not part of the United Fund of a community.

There is a great deal of space spent on the actual problems of raising money but little analysis on what any one agency actually provides in education or rehabilitation. There is discussion of basic research but little that is pointed to in detail outside of the dramatic work of the National Foundation. The National Institutes of Health are mentioned but their relationship to basic health research is never quite clear.

Some of the attacks on the United Fund approach can be made against certain voluntary health organizations such as the use of volunteers paid for by industry. The facts and examples used forces the reader to the impression that the main part of the work was intended not to be a probing study of the national voluntary health organizations but a defense of their position. We are given five full pages of the names of the medical advisory committees of the National Foundation but not a word on how such a diverse committee is able to make decisions in a proper manner. A great many important statements are made but not evaluated. How good are the operations of the medical advisory committees? What exactly are the programs of these agencies? How good are they?

It it were not for the very interesting manner of puncturing holes in the facade of some of the agencies discussed, the volume would be of little interest. It has not accomplished its objectives, but for anyone intimately associated with the National Voluntary Health organizations it is the first readable book on the subject in a long time.

*—Walter Palner, Director*
*Research, Economics, and Statistics,*
*Credit Union National Association Inc.*

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Older patients often need help when they complain of dizziness . . . help that can be provided by Dramamine. This classic drug is free of serious side effects, easy-to-take and frequently is effective against dizziness with a vestibular component whether acute or chronic. These elder citizens will be grateful for Dramamine.

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Dosage: one 50-mg. tablet, t.i.d.

*Research in the Service of Medicine* SEARLE

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(Continued from Page 749)

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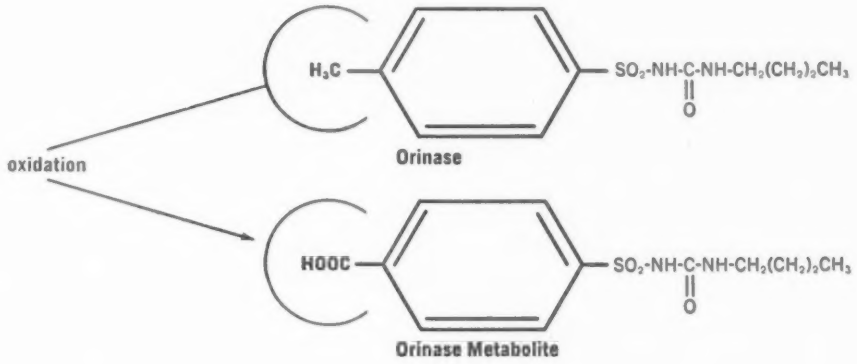
*(Continued on Page 803)*

# Why is the methyl "governor" in Orinase so important?

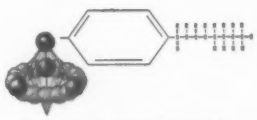
One of the most significant advantages of Orinase therapy is the rarity of associated hypoglycemic reactions.

This widely-reported clinical benefit is a function of the exclusive Orinase methyl "governor." Lending itself to ready oxidation (principally, it is thought, a hepatic process), the methyl group ensures prompt metabolic inactivation of the Orinase molecule. What actually happens is that a rapidly- and continuously-excreted carboxy-metabolite is produced that has no hypoglycemic activity at the existing levels.

As a result of the oxidation of its methyl group, Orinase shows a decline in activity soon after it reaches its effective peak in the plasma. Maintenance dosage serves to reduce blood sugar levels to normal, but rarely below that point, and there is no reported problem of accumulation.




# Orinase*



An exclusive methyl "governor" minimizes hypoglycemia

*Indications and effects:* The clinical indication for Orinase is stable diabetes mellitus. Its use brings about the lowering of blood sugar; glycosuria diminishes; and such symptoms as pruritus, polyuria, and polyphagia disappear.

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Patients receiving insulin (less than 20 units)—discontinue insulin and institute Orinase; (20 to 40 units)—initiate Orinase with a concurrent 30 to 50% reduction in insulin dose with a further careful reduction as response to Orinase is observed; (more than 40 units)—reduce insulin by 20% and initiate Orinase with a further careful reduction in insulin dosage as response to Orinase is observed. In candidates for combined Orinase-insulin therapy, an individualized schedule is usually obtainable during a trial course of two or more weeks.

*Contraindications and side effects:* Orinase is contraindicated in patients having juvenile or growth-onset, unstable or brittle types of diabetes mellitus; history of diabetic coma, fever, severe trauma or gangrene.

Side effects are mild, transient and limited to approximately 3% of patients. Hypoglycemia and toxic reactions are extremely rare. Hypoglycemia is most likely to occur during the period of transition from insulin to Orinase. Other untoward reactions to Orinase are usually not of a serious nature and consist principally of gastrointestinal disturbances, headache, and variable allergic skin manifestations. The gastrointestinal disturbances (nausea, epigastric fullness, heartburn) and headache appear to be related to the size of the dose, and they frequently disappear when dosage is reduced to maintenance levels or the total daily dose is administered in divided portions after meals. The allergic skin manifestations (pruritus, erythema, and urticarial, morbilliform, or maculopapular eruptions) are transient reactions, which frequently disappear with continued drug administration. However, if the skin reactions persist, Orinase should be discontinued.

*Clinical toxicity:* Orinase appears to be remarkably free from gross clinical toxicity on the basis of experience accumulated during more than four years of clinical use. Crystalluria or other untoward effects on renal function have not been observed. Long-term studies of hepatic function in humans and experience in over 650,000 diabetics have shown Orinase to be remarkably free of hepatic toxicity. There has been reported only one case of cholestatic jaundice related to Orinase administration, which occurred in a patient with pre-existing liver disease and which rapidly reversed upon discontinuance of the drug.

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Supplied: In bottles of 50.

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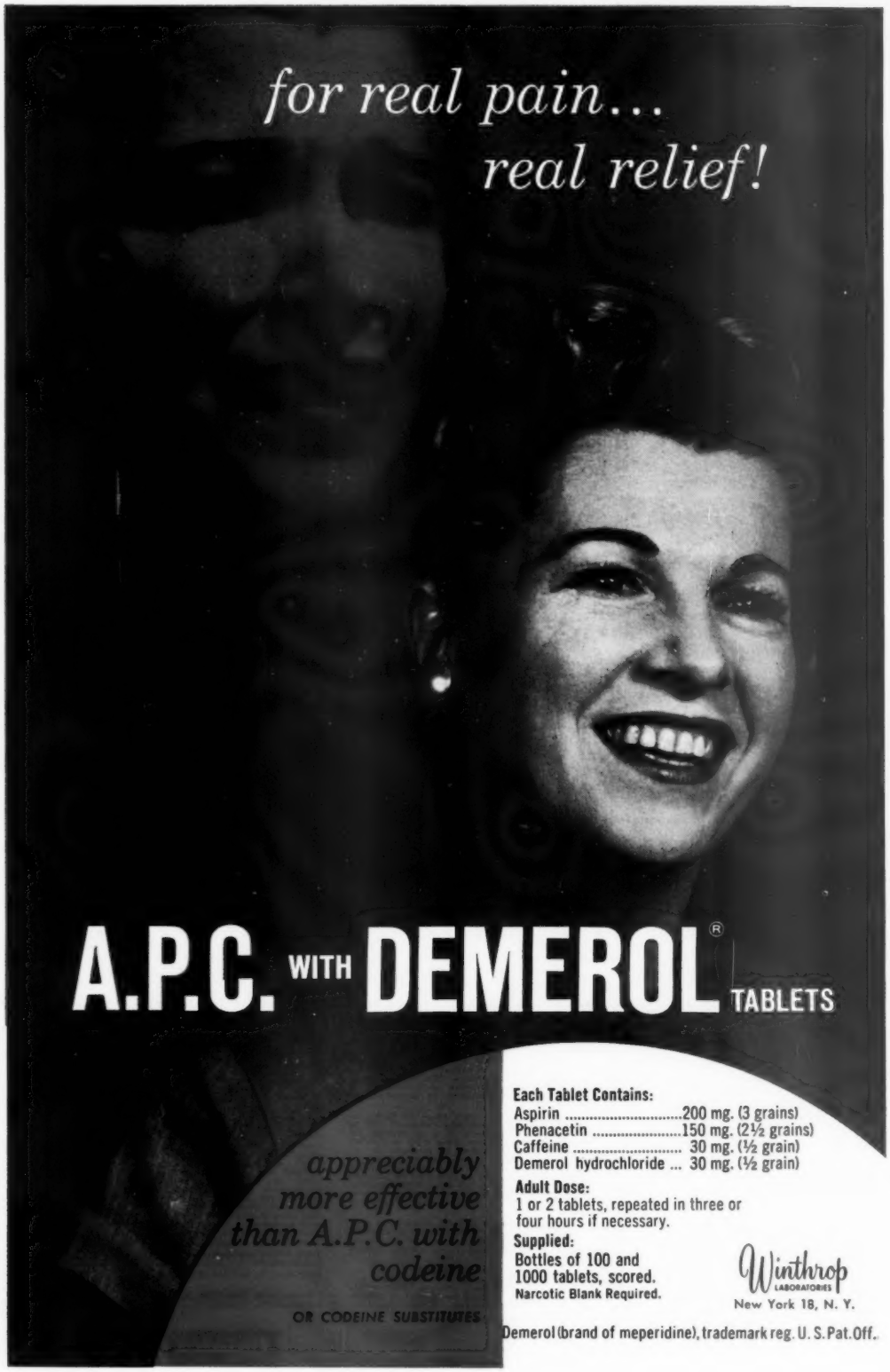
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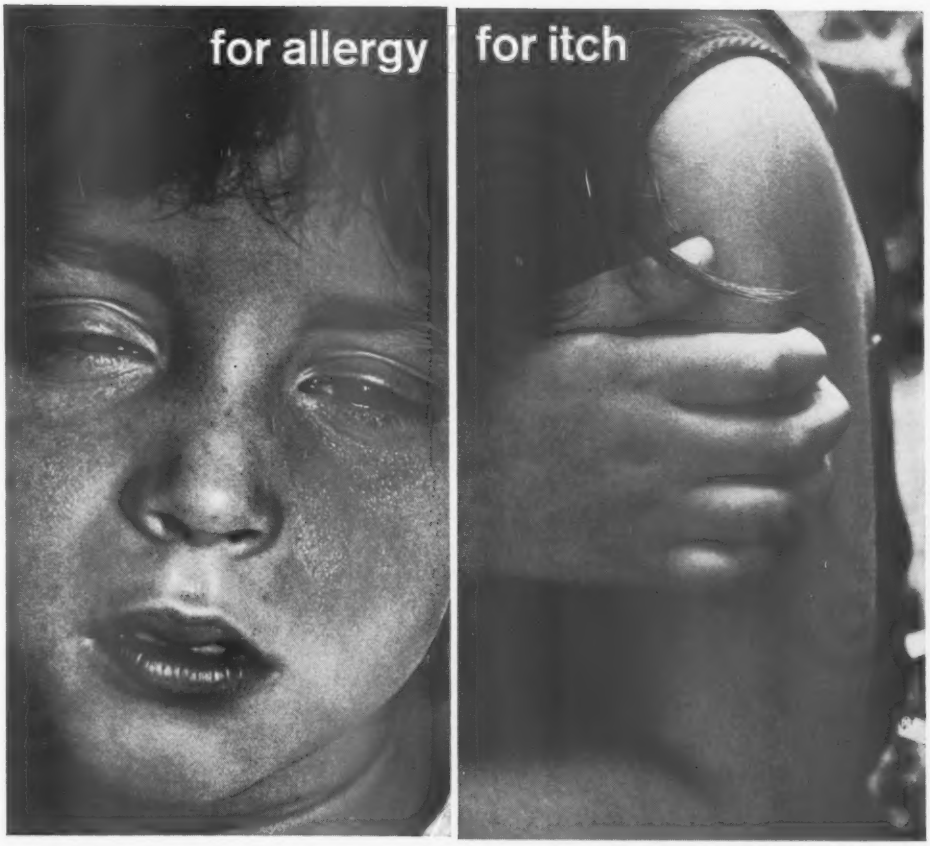


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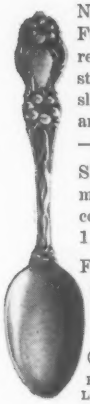

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*Jacques, A. A., and Fuchs, V. H.: J. Louisiana M. Soc. *113*:110 (March) 1961.

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1. Cornely, D. A., and Ritter, J. A.: N-acetyl-p-aminophenol (Tylenol Elixir) as a Pediatric Antipyretic-Analgesic, J.A.M.A. *160*:1219-1221 (April 7) 1956.
2. Mintz, A. A.: Management of the Febrile Child, J. Ky. Acad. Gen. Pract. *5*:26-31 (January) 1959.

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*(Continued on Page 804)*

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(Please check address to which THE JOURNAL and AMWA correspondence are to be mailed.)

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(Continued from Page 803)

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**Please report all changes in Branch officers and chairmen as soon as possible to American Medical Women's Association, 1790 Broadway, New York 19, N.Y.**

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All members receive the official publication, the JOURNAL OF THE AMERICAN MEDICAL WOMEN'S ASSOCIATION. Life and Active members receive membership in the Medical Women's International Association.

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## PROGRAM OF THE 1961 ANNUAL MEETING OF THE AMWA

| | a.m. | p.m. |
|---|---|---|
| WEDNESDAY November 29 | | 1 p.m. Meeting of the Executive Board |
| THURSDAY November 30 | 9 a.m. Executive Board Meeting and Committees as called | 2-4:30 Registration of Members<br>5:15 Opening of the Annual Meeting<br>Tour and dinner at the Cleveland Clinic<br>8:00 Karamu Theater |
| FRIDAY December 1 | 9 a.m. House of Delegates | noon Luncheon honoring Elizabeth Blackwell Award recipient and Medical Women of the Year<br>2-4:00 House of Delegates<br>6:30 Inaugural Banquet |
| SATURDAY December 2 | 9 a.m. Scientific Session<br>Address: Alcoholism Today—Martha Brunner-Orne, M.D.<br>Panel: What Concern is Alcoholism to the Family Physician, to the Community Worker, in the field of Accident Prevention, and Voluntary Agencies | noon Luncheon<br>Panel: An Innovation in Medical Education at Western Reserve University<br>2:00 Tour of Cleveland Museums<br>4:00 Tea at Woman's Hospital<br>7:30 Buffet supper at the home of Dr. Marion Gibbons, President, Branch 15 |

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and
postpartum
constipation

# DOXIDAN®

FOR GENTLE, EFFECTIVE LAXATION

THERAPEUTIC GENTLE EFFECTIVE LAXATION DOXIDAN

In pregnancy, the enlarging uterus or reduced bowel tonicity and motility frequently contribute to the cause of constipation. Doxidan is a well tolerated, gentle laxative which may be administered with confidence in prenatal and postpartum patients. Because Doxidan contains a highly effective fecal softener, a subclinical dose of the mild peristaltic stimulant, danthron is all that is needed to effect easy normal evacuation.

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**ADULT DOSE:** One or two capsules administered at bedtime for two or three days or until bowel movements are normal. Supplied in bottles of 30 and 100 soft gelatin capsules.

1. Beil, A. R. and Brevetti, R. E.: Management of constipation during the puerperium, New York State J. Med. 60:2706-2707, September 1, 1960.

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myo- -vascular relaxant

provides direct, non-hormonal action on the myometrium to relieve painful uterine spasm or hypermotility

**VASODILAN does not disturb normal menstrual rhythm or flow[1,2]...and can be prescribed safely with other therapies.[2]**

**PROOF OF CLINICAL EFFECTIVENESS**
**In one double-blind study,[1] good to excellent relief of severe menstrual cramps was noted in 79 per cent of the patients. Another investigator[3] notes satisfactory relief of dysmenorrhea in 83 per cent of the cases studied.**

*Contraindications:* There are no known contraindications to oral administration of VASODILAN in recommended doses.

*Cautions:* VASODILAN should not be given immediately postpartum or in the presence of arterial bleeding. Parenteral administration is not recommended in the presence of hypotension or tachycardia. Intravenous administration is not recommended because of the increased likelihood of side effects.

*Side effects:* Few side effects occur when given in recommended oral doses. Occasional palpitation and dizziness can usually be controlled by dosage adjustment. Single intramuscular doses of 10 mg. or more may result in hypotension or tachycardia.

*Dosage:* For menstrual cramps, give 10 or 20 mg. (1 or 2 tablets) three or four times daily, 24 to 72 hours prior to expected onset of menstruation.

*Supplied:* 10 mg. tablets, bottles of 100; 2 cc. ampuls (5 mg./cc.) for intramuscular use, boxes of 6.

*References:* (1) Ratowsky, S., and Padernacht, E. D.: Clin. Med. *8*:512-514 (March) 1961. (2) Voulgaris, D. M.: Dysmenorrhea: Cramps or Psyche?, Scientific Exhibit, Am. Acad. G. P., Philadelphia, March 21-24, 1960. (3) Voulgaris, D. M.: Obst. & Gynec. *15*:220-222 (Feb.) 1960.

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